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FOREIGN EXCHANGE

FOREIGN EXCHANGE

BY

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WITH ACKNOWLEDGMENTS

TO

F. L. LIPMAN, E. W. WILSON

AND

L. R. COFER

PREFACE

This book deals, not with the subject of international trade in its entirety, but with the plans of payment and the methods of banking and financing followed in that trade. It treats of "foreign exchange" in the narrower, and at the same time, conventional, sense, as meaning the commercial paper of international trade, or the checks, drafts, and bills utilized therein. By means of these instruments, importers and exporters manage, through the aid of the bankers for foreign commerce, not only to settle their accounts, that is, to make and collect payments, but also to finance their shipments, which is something quite distinct. Stated briefly, the subjects of study in this volume are the methods or proceedings and the forms or documents of foreign-trade settlement, banking, and financing. Belonging with these, the international movement of gold and the measures taken to influence it are examined at length. The contemporary expansion of American foreign trade and the entry of American banks into the foreign field adds much to the importance of these matters with us to-day.

It is hoped the book will prove useful, not only to those following foreign trade and banking as business callings, but to all students of the questions of national policy that arise out of foreign commerce. In its endeavor to serve the former, the volume presents itself as a practical business manual, while to the latter it comes as a treatise in economics. The union of these two has not appeared in the end to be detrimental to either. Most that is told herein is worth the economist's knowing, and in any case the or-

ganization is such that sections dealing with matters of an over-technical character may readily be omitted. It is particularly desired that this work should find employment as a text in a full and independent course on foreign exchange in university departments of economics or of commerce and business administration, where heretofore the subject has usually been handled in an incidental way in the general course or in the course on money and banking. As a business manual the book in no wise sets up the claim that it will give a complete practical education to the one who is to enter the field of business of which it treats. For any book to make such a claim would be tantamount to a jest. What it should do is to enable the one who studies it to profit most from the lessons of experience, his real teacher.

A. C. W.

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FOREIGN EXCHANGE

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CHAPTER I

MEANS OF PAYMENT AND COMMERCIAL PAPER

§ 1. The subject and plan of the book.—The word "exchange" is used in a broad sense as a synonym for trade or commerce. It also signifies a place or building where a particular kind of trade is carried on, as a stock exchange or a cotton exchange. The word has still another meaning, the meaning for example which attaches to it in such phrases as "New York exchange" or "sterling exchange." Here it refers to that class of written orders to pay money, known legally as bills of exchange, drawn by merchants or bankers at one geographical point upon those at other points, which are used so much oftener than money itself as a means of making payments or settling indebtedness between distant places. In good usage, "exchange" has come to have only this special and narrow banking signification when it appears in the phrase "foreign exchange." That is, "foreign exchange" does not usually mean international trade. Thus it comes to pass that this book, like others on the subject of foreign exchange or the foreign exchanges, is not occupied with international commerce in general, but merely with one of its incidents, namely, the system by means of which the world of business discharges the debts that arise out of this commerce. In a word, it is devoted to the subject of *international means of payment.*

It will be the endeavor to combine in the present work a

practical business manual and a treatise in political economy. The distinctive object of the business manual pure and simple is to aid in the development of individual business proficiency, while the distinctive object of a study in economics is to throw light upon questions of the public policy of the state or nation. It seems feasible in the undertaking in hand to serve the two purposes conjointly. As an economic treatise on the exchanges this book aims to unfold the principles in accordance with which this part of the business system operates. The result of this study, or of other similar studies, should constitute a section of our general economic knowledge—a section which would be relatively unimportant in connection with many questions but significant to a high degree in connection with problems of public monetary and banking policy, and to a certain degree in connection with questions of tariff policy. The endeavor to make the book a useful business manual necessitates the treatment of banking and business forms and procedure with much particularity. But there can be little question of the advantage to the economist, even as publicist, of knowledge of the business detail of banking for foreign trade, and of the exchanges and specie movements. On the other hand, an attempt to explain the system of the foreign exchanges after the fashion of the economists, should exert a beneficial influence upon the book as a business manual.

§ 2. **Money and means of payment.**—In the ordinary business transaction of purchase and sale, we think of the buyer as being obligated to make payment to the seller in *money*. But in fact he frequently settles without the use of actual money, finding it more convenient to employ other means of payment. In truth, his obligation cannot be described exactly as one to pay money. The strict legal obligation of the buyer of goods for "money," that is, the buyer at an ordinary price without special stipulations as

to the means of payment, is to pay what is known as *legal tender*. And only some of the things that are regularly known as money are also legal tender. In the United States, for instance, gold coin is both legal tender and money, but gold certificates and silver certificates are not legal tender although they are undoubtedly money. We shall speak of legal tender in the third section.

The term "money" has a somewhat variable meaning, depending on context, whether in legal, economic, or popular usage. Even the formal or set definitions given by economic writers differ in phraseology and substance. So it is not possible to give a definition for which unanimous assent can be claimed. But one can be framed which will correctly describe what is usually called money in everyday life, and which will enable us to draw the lines of demarcation between those means of payment employed in actual commerce that are best called money and those that are not, and which will bring out certain items of information worth knowing. We may then offer the following: Money is that article, or group of articles, which is customarily passed from hand to hand throughout a community in payment for ordinary commodities and services, thus acting as a medium for exchanging these commodities and services, (1) that is regularly taken by the person who receives it without the intention of applying it to any other use than in turn to offer it in payment to others, and (2) that is customarily received without assay or other special test of its quality or quantity, and (3) that is received without reference to or reliance upon the personal credit of the one who offers it.[1]

[1] Substantially this definition may be found in Francis A. Walker's "Money," p. 395; and in an article by A. P. Andrew, *Quarterly Journal of Economics*, vol. 13, p. 219; and in a decision of court in Moss v. Hancock, [1899], 2 Q. B. 116, cited in the article on Money in the "American and English Encyclopedia of Law,"

CHIEF MEANS OF PAYMENT IN THE UNITED STATES

		Legal tender powers between private persons
Bullion but not money	Gold bullion	None
Money	U. S. gold coin	Full
	U. S. silver dollar	Full [2]
	U. S. "subsidiary silver" coin	Up to $10 [3]
	U. S. "minor coin" (5c, 1c)	Up to 25c [3]
	U. S. gold certificates	None
	U. S. silver certificates	None
	U. S. treasury notes (greenbacks)	Full [2]
	National bank notes	None
	Federal Reserve Bank notes	None
	Federal Reserve notes	None
Commercial paper	Cashiers' and certified checks of banks, and certificates of deposit	None
	Bankers' drafts on other banks	None
	Drafts of merchants on banks under letters of credit	None
	Depositors' checks on banks	None
	Merchant's drafts on merchants	None

vol. 20, p. 838. It is not to be inferred that there is any single authoritative definition of money in a legal sense. What the term is construed to mean when occurring in indictments or documents which appear in civil cases, depends on the circumstances. See the word "money" in "Words and Phrases Judicially Defined."

[2] Silver dollars and greenbacks are legal tender in unlimited amounts in a single payment "unless otherwise specified in the contract." See the text, p. 8, and note at end of § 3.

[3] Subsidiary silver is legal tender not to exceed $10 in a single payment. Minor coin is legal tender in single payments not to exceed 25c.

The tabulation opposite shows the chief means of payment in use in the United States and indicates which are money.

While gold bullion is sometimes referred to as the "international money" *par excellence,* it is not money strictly speaking, for it has to be weighed and assayed or subjected to special tests as it is passed. It is the most important money material and is the practically final means of payment between different countries, including many countries not on the gold standard. It has the important peculiarity of having a virtually invariable money price per ounce (or other physical unit) in any gold standard country and this is what gives it its primacy as a means of international payment. Commercial paper or negotiable instruments are excluded from the category of money on the grounds that these means of payment regularly involve the right of "personal recourse" [4] of the receiver upon the giver. In other words, they are taken with strict reference to the personal credit of those who have created them and who have handled them before they come to the one receiving them. They do not have the universal acceptableness of those things that are truly money, and this is clearly the reason why they are not regarded as money by people generally. That these instruments are always orders or promises to pay something else is *not* the ground for excluding them from the category of money. Most forms of money are themselves orders or promises to pay something else, for instance, gold certificates, silver certificates, bank notes, treasury notes, or even token coin.[5] Efforts to confine the term "money" to the ultimate money of redemption, namely, that article which is not itself redeemable in anything else, as gold

[4] See later, p. 32 et seq.

[5] Token coins generally throughout the world are convertible into standard money, and may be looked upon as metallic orders or promises to pay standard money.

coin in a gold standard country, or to confine it to coin, give definitions that have little utility and no correspondence with the usage of daily life.

§ 3. **Legal tender.**—Legal tender may be defined as any article or medium which the law declares capable of discharging an obligation to pay money. This applies to obligations expressed in the national "unit of value," as dollars in the United States and pounds in England. Person A may be under oral or written engagement to pay a legally determinate amount of money to B, their understanding being no more definite as regards the medium of payment than that "money" is due; and A and B may have a dispute, at the time when A proffers payment, with respect to the medium in which A has a right to discharge his debt. To meet the necessities of such cases the law has provided what the things shall be that are capable of discharging obligations between private persons expressed in money. However, the law (the reference here being to the law of England and the United States) does not call these things "money," or "legal money," or "lawful money,"[6] but it calls them legal tender.[7]

If a creditor for money refuses to take legal tender proffered by the debtor when an account is due, the effect of the proffer, or "tender," is not to discharge the debt itself. That is, a rejected tender is not equivalent to payment. The effect is, however, to stop interest running on

[6] The term "lawful money" does not have an invariable legal significance in the United States. It generally means any form of money issued by the United States, but its meaning in legal documents and statutes depends on context. It is sometimes used as a synonym for legal tender. See "Words and Phrases Judicially Defined," p. 4031.

[7] Countries with other legal systems than that of England, have what correspond to our laws of legal tender though they are not wholly similar in nature.

the debt and to relieve the debtor of liability for costs of collection. "A legal tender [tender is here used in the sense of the act of proffering] is equivalent to payment as to all things that are incidental or consequential to the debt. The creditor, while not losing his rights to the prior debt itself by refusal of the tender, loses all collateral benefit and securities" ("Words and Phrases Judicially Defined," p. 6910).[8] In the event that, after his rejection of the tender, the creditor later sues the debtor, the latter may plead in court that he has already made a tender and accompany this plea with a renewed offer to the court of the original sum due, and may thus escape the necessity of paying either costs or interest after the date of the original tender. To operate in this manner as a means of saving interest and costs, a tender must be "kept good," that is, the debtor must not allow the creditor to make a demand on him without being ready with a proffer of legal tender. The refusal of a creditor to accept an offered payment, though doubtless exceedingly rare, might arise out of a dispute over the medium in which payment is to be made, or might be occasioned by the creditor's suspicion of a particular kind of money, or by special circumstances or captious motives. In any case, the creditor for money is, without prejudice to his rights, entitled to refuse to receive in payment checks or drafts or forms of money not legal tender. A method available to a debtor finally to rid himself of his obligation, after a rejected legal tender, is to pay the original sum due as on the maturity date, into court for the account of the creditor. Payment into the creditor's bank for his account would suffice in some states.

The original and proper reason for the existence of the

[8] Compare also article on "Payment" in the "American and English Encyclopedia of Law," vol. 22, p. 538.

law of legal tender is that it is a technical legal necessity for the discharge of certain kinds of private contracts. However, in many instances, where a state has conferred the legal tender power upon its paper money, the motive has been not so much to accommodate private citizens with another means of payment, as to aid in forcing the circulation of the paper for the benefit of the state's own finances.

As appears in the table, there are but three forms of money in the United States which have "full legal tender power," which means legal tender power between private parties in unlimited amounts in single payments. These are (1) gold coin, (2) the silver dollar, and (3) the United States Note or greenback. Subsidiary silver and minor coin have limited legal tender power as already explained.[9] Other forms of money have *special tender powers* of one sort or another in considerable variety. To give one example, a national bank note is legal tender in payment of an obligation due any national bank, whether the bank that issued the note or any other national bank. Several forms of money are special legal tender in payment of taxes and dues owing to the Federal government itself.

Where a contract for the payment of money expressly provides for payment in a *particular kind* of money, the debtor cannot discharge his obligation (unless with the consent of the creditor) in any other form of money than that specified. Thus a note "payable in United States gold coin" cannot be discharged by the payment of silver dollars or greenbacks except by the consent of the creditor. Under the present monetary conditions of the United States, the only form of contract for a special kind of money which is at all common, is one calling for payment "in United States gold coin." But the principle of law that a binding contract may be made for any special form of money is

[9] See notes to table of means of payment.

general in character and does not apply merely to gold.[10]

§ 4. Commercial paper.—In practice sellers of goods and creditors in general almost never stand upon their strict legal rights to demand legal tender, or gold coin if the

[10] See the "American and English Encyclopedia of Law," article on "Payment," vol. 22, p. 541, and cases cited there. After the decision of the United States Supreme Court in Bronson vs. Rhodes, referred to beneath, the Federal statute reëstablishing the coinage of the silver dollar (the Act of Feb. 28, 1878, known as the "Bland-Allison Silver-Purchase Act") provided in § 1 that all silver dollars coined under this Act or heretofore coined by the United States "shall be a legal tender, at their nominal value, for all debts and dues public and private, *except where otherwise expressly stipulated in the contract.*" Subsequently the second silver-purchase Act (the "Sherman Act" of July 14, 1890) authorized a special issue of United States Treasury Notes to be used to purchase silver bullion for coinage, and in § 2 provided that "such Treasury notes shall be a legal tender," etc., "*except where otherwise expressly stipulated in the contract.*" A later statute provided for the retirement and cancellation of these "Treasury Notes of 1890" and only a small amount remain outstanding to-day (1919). The one other element in the currency of the United States, apart from gold coin, which has "full legal tender power," consists in the regular United States Notes or "Greenbacks." The clause that these notes should be legal tender "except where otherwise expressly stipulated in the contract" has never been written into statute. The "Gold-Standard Act" of March 14, 1900, made no changes whatever in the legal tender laws. The original Act passed Feb. 25, 1862, conferring the legal tender power upon these notes was enacted without this limiting clause (see Revised Statutes of the United States, § 3588). Nevertheless, there is no question that these notes lack legal tender power for contracts expressly payable in gold (or silver, for that matter). This assertion is based on the decision in Bronson v. Rhodes (1868).

An excellent note on "special contracts and obligations to make payment in gold or silver" in "Lawyers' Reports Annotated," Book 29, pp. 512–28 (1895), surveys the course of judicial decisions on this subject. In Bronson v. Rhodes, 74 U. S. (7 Wall.) 258, (1868), the Supreme Court held that a bond expressly payable "in gold and silver" could not be discharged in legal tender notes except with the consent of the creditor. (This bond was issued in 1851, before

contract calls for the latter form of payment. But they readily take certain substitutes for these things, which, by reason of their being convertible into them, are regarded as equally good at the time and place. These substitutes may be forms of money that are not legal tender, or are not gold, or they may be forms of commercial paper. The latter term may be said to cover that entire mass of transferable written orders and promises to pay money which we find circulating among merchants and banks as a means of discharging obligations which arise in commerce. It includes bills, drafts, checks, and notes.[11] There are, however, only two principal classes of commercial paper, namely *orders* and *promises* to pay money. Those instruments which are orders are, if drawn in a proper manner, called bills, or more fully, *bills of exchange*. The promises, if in proper form, are known as notes, or more fully, *promissory notes*. Checks are merely a particular class of bills of exchange. An instrument known as a draft is also almost always some type of bill of exchange.

The volume of commercial paper in circulation reaches the enormous proportions that we find partly because of

---

the creation of the legal tender notes, but this fact has no determining influence on the opinion. This decision has been followed uniformly by the Federal courts in a number of cases. As for the decisions of state courts, where the contract expresses an indubitable intention of the parties to make it payable in gold, or in silver, all the numerous state decisions *subsequent to* Bronson v. Rhodes follow it except two, and neither of these are clear cases (see the note above mentioned, p. 519).

The "Legal Tender Case" (Knox v. Lee, 79 U. S. 12 Wall. 457) has been represented by some writers as overruling the doctrine of Bronson v. Rhodes, but this representation is wholly erroneous (see same note, p. 518).

[11] The term commercial paper is sometimes used in a narrower sense so as to exclude drafts drawn by bankers on bankers, and even checks and drafts drawn by merchants on bankers, but the better term to convey this narrower meaning would seem to be "trade paper."

its superior convenience over money as a mere means of remittance. This is exemplified by the great serviceableness of a draft on a New York bank as an instrumentality by means of which a merchant, say, in Denver, may pay an amount due to one in Philadelphia or Boston or New York. This kind of convenience accounts in general for the use of all types of so-called sight or demand paper, that is to say, paper payable at sight or on demand. In great part, however, the extensive use of commercial paper is to be attributed to the further circumstance of the extreme utility of time paper, that is, paper payable a designated period after date or after sight, as a means of gaining the assistance of banks in the financing of commercial operations or operations in securities. Much of the present book will be devoted to the explanation of this subject. As is made clear in books on credit and banking, the effect of the employment of commercial paper as a substitute for cash is not so much merely to postpone the transfer of actual money as in large part to do away with it.

§ 5. **The bill of exchange.**—As already stated the bill of exchange is an order to pay money. In making our first acquaintance with this instrument we shall be content to learn the rudiments of its make-up and uses. Discussion of documentary bills, and bills under a bank credit, and bills drawn on a foreign country payable at the exchange rate on the home country or a third country, and "finance" bills, and other such subjects, will come in due time. On page 12 is an example of a bill drawn by merchant on merchant, a type sometimes referred to as a trade bill.

A legal definition [12] of a bill of exchange is "an uncondi-

[12] From the Uniform Negotiable Instruments Law (now in force—July, 1919—in all jurisdictions in the United States except the state of Georgia), § 210, as the sections are numbered in the New York law. The text of this law is in Huffcut's "Negotiable Instruments" or in Crawford's "Negotiable Instruments Law Annotated."

$275.00 Boston, Mass., June 15, 1916.

Sixty days after sight, pay to the order of John Doe Two Hundred and Seventy-Five Dollars. Value received and charge to my account.

To C. D. Buyer,
45 Nassau St.,
New York.

A. B. SELLER.

TRADE BILL

The three parties to this instrument are:
A. B. Seller .....the "drawer."
C. D. Buyer .....the "drawee."
John Doe .....the "payee."

tional order in writing addressed by one person to another, signed by the person giving it, requiring the person to whom it is addressed to pay on demand or at a fixed or determinable future time a sum certain in money to order or to bearer." This definition states briefly the requirements to which an instrument must conform if it is to be a negotiable bill. An order to pay money which fails to meet all these requirements cannot strictly be called a bill of exchange, but it would be an error to suppose that any precise formula of words is necessary to constitute a legally valid bill. In the specimen given above, omission of the last clause, "value received and charge to my account," would have no effect on the instrument, at least where the Uniform Law prevails. The various printers' and engravers' embellishments on the common prepared blanks for checks, drafts, and other forms of bills, are without direct legal significance except for the words which they comprise.

With the warning that the trade bill is but one of several

types of bills of exchange, let us now explain the relations which exist in regular practice among the three parties to this instrument. The drawer, or one who writes the order, gives directions to the drawee to make a specified payment of money. He relies upon the drawee's following out his instructions because the latter owes him at least as much money as he has ordered paid in the bill. For in this instance the drawer is the seller of goods and the drawee is the one who has bought them without as yet having made payment. That is, the drawer is a mercantile creditor and the drawee is his debtor in the case. Concerning the conditions under which the drawee is legally bound to honor a bill we shall speak in the next section. The payee is the person (individual, firm, corporation, or bank) to whom the payment is ordered made. This person may be the original payee named in the bill, or may be some party to whom the original payee has transferred the instrument. When the drawee makes payment on the bill, to the payee, he cancels his debt to the drawer, to the extent of the sum so paid. He discharges his debt not by payment direct to his original creditor, but by payment to a third party under the original creditor's orders.

Mr. Seller is the drawer of the specimen bill shown above. The payee is John Doe. The clause "pay to the order of John Doe" has the same significance as "pay to John Doe or order," a form almost equally common, and means pay to John Doe or to any one to whom he in turn directs payment to be made. Now John Doe might be a banker or money broker or he might be an individual creditor of Mr. Seller's. In any case if Seller gives Doe a bill which is payable some time in the future, it will be customary for Doe to receive the instrument as the equivalent of a sum of present cash somewhat less than the full amount due on it at its maturity. Thus on June 15 he might take the bill of our illustration, which presumably will yield $275 on

the date of its maturity, as being the equivalent of say $272.25 of present cash. This subject, namely, the subject of the reduced present value of sums due in the future, will be taken up in chapter ii.

While, as said, this John Doe might be an individual creditor of Seller, it is much more common for him to be a banker, who is either buying the bill or taking it "for collection." Of these things we shall speak in detail later. In either event the bill is created as an instrumentality whereby the mercantile creditor procures payment for goods from a distant debtor, and the bank intervenes as a concern whose business it is to aid in the process of settlement. If Seller intended to dispose of the bill to the First National Bank, he might write in the name of this institution as the original payee, or he might make himself the first payee, by writing for instance "pay to the order of myself," and then transfer to the bank and make it payee by indorsement.[13] A bill to the order of "myself" or "ourselves" is not uncommon. It is a convenient form if at the time when the instrument is drawn it is not certain to whom it will be sold or transferred. Concerning what happens if a bill does not turn out good, that is, if the drawee fails to pay, we shall speak in § 12 below.

For a long period the trade bill has occupied a position of the greatest importance in the foreign commerce of all countries, including the United States. It has played a very important rôle also in the domestic commerce of a number of countries. But up to the present day it has seen little service in the domestic trade of the United States. There is now a movement in progress to introduce it here, but there is also opposition.

It should not be inferred that the trade bill, that is to say, the bill of merchant on merchant, has been hitherto

[13] Compare § 11 below.

wholly unknown in the internal trade of the United States. It has been in use, usually in the form of the sight bill, or very short term bill, with documents attached,[14] but it has held a position of little consequence. Of course such forms of bills of exchange as checks and bankers' sight drafts have had a tremendous vogue in American internal trade,[15] while in our foreign trade the long bill on the American bank is now becoming of the greatest importance.

§ 6. **The acceptance.**—The drawee is not legally bound to the holder, or payee, of a bill unless he has himself taken action to make the bill his own obligation. The mere writing and signature of the distinct person, the drawer, does not make the bill binding upon the drawee, and this is true even if the latter owes the drawer the sum of money called for in the instrument. This proposition may be summarized for those familiar with the law of contracts by saying that the drawing and transfer of a bill of exchange does not operate as an assignment. The formal act whereby the drawee adopts the bill as his own obligation is known as *acceptance*. Acceptance is, as the Uniform Law states, the written signification by the drawee of his assent to the order of the drawer. This is accomplished in the regular manner by writing the word "accepted," with the date and the signature of the drawee, across the face of the bill, usually somewhat obliquely on the left end of the instrument. If the bill already shown is accepted, it will appear as beneath.

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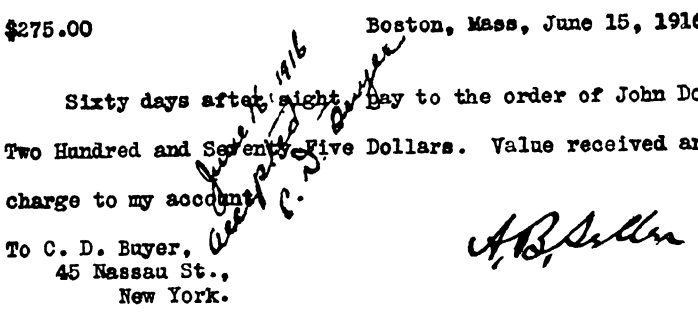
14 Concerning the attachment of documents, see chapter VI.

15 A curious and exceptional use of the bill of exchange in small domestic business is as a means of forcing a slow debtor upon whom the creditor would never think of drawing a draft in the ordinary course of things. A debtor who persistently refuses payment of an overdue account is drawn upon for the simple purpose of forcing him either to pay or to disclose his refusal to some local bank to which the draft has been given for collection.


$275.00 Boston, Mass, June 15, 1916.

Sixty days after sight pay to the order of John Doe Two Hundred and Seventy-Five Dollars. Value received and charge to my account.

To C. D. Buyer,
45 Nassau St.,
New York.

Under English law the acceptance must be written upon the bill itself, but under the Uniform American Law it *may be* written on a separate paper and bind the acceptor to any person to whom this paper has been shown and who receives the bill for value on the faith of this separate acceptance.[16] But under the American law the holder has a right to demand an acceptance written on the bill itself, and this is the safe and regular acceptance practically always taken. That the holder has a "right" to demand an acceptance written on the bill signifies that if this kind of an acceptance is refused by the drawee the holder may treat the bill as dishonored and exercise an immediate right of recourse on the drawer or any indorser. In § 12 there will be found an explanation of the nature of the right of recourse.

The word "acceptance" is used to designate (1) the act of the drawee in assuming obligation on the bill, (2) the written words added to the bill, and (3) the bill itself after acceptance. An accepted bill is more commonly called an "acceptance" than anything else. If Brown draws on Smith and Smith accepts, Smith is known as an "acceptor," and thereafter the bill is known as Smith's acceptance.

[16] See Uniform Law §§ 221–2 (as already cited) and § 17 of the English Bills of Exchange Act (to be found in Huffcut as already cited).

It is evident that in general there is no occasion for the acceptance of bills payable "at sight" or "on demand." For if the drawee decides to treat a demand bill as his obligation it is his duty to pay it forthwith. He takes immediate possession of it and there is no point in writing "accepted" upon it.[17] In the case of long or time bills, it is sometimes essential to procure acceptance and it is always advisable and in order. With respect to the bill drawn payable a designated period after sight, or after demand, presentment for acceptance is necessary in order to fix the date of maturity of the instrument. The date of the acceptance becomes the date of sight, or demand, from which the due date is fixed. Further explanations respecting the question when presentment for acceptance is essential and when not, are best postponed to § 12.

§ 7. **The note.**—A bill is the order, but a note is the promise, of the one who writes it. The following is an example of a note.

> $500.00 New York, N. Y., June 15, 1919.
>
> Sixty days after date, for value received, I promise to pay to the order of Charles D. Brown, Five Hundred Dollars.
>
> EDWARD F. JONES.

To this there may or may not be added a clause promising interest, such as the clause "with interest at 5% per annum." In the absence of the clause, the full sum due upon the note at its maturity is $500.

[17] The certification of checks by the drawee banks is an exception to this statement. A bank's certification of a check is an acceptance of a demand draft—which it is the design of the drawer or other holder to send in payment to some person who perhaps insists upon this special security.

Brown is the "payee" and Jones the "maker" of this instrument. The best usage does not permit an interchange of the names of the parties signatory to the two kinds of negotiable paper. The writer of the *promise* is the "maker" and not the "drawer" of the note. The writer of the *order* is the "drawer" and not the "maker" of the bill. The definition of a note, as given in the Uniform Law, is "an unconditional promise in writing made by one person to another signed by the maker engaging to pay on demand or at a fixed or determinable future time, a sum certain in money to order or to bearer." [18] Promises in writing to pay money might be so worded as to fail to meet some of the requirements of this definition and still be called notes in common speech, but such instruments would not be negotiable in the true legal sense [19] and could not be called promissory notes in the strict meaning of the law. In fact, however, practically all notes of actual business life are so framed as to conform to this definition. They are, as the saying goes, made "negotiable in form." No precise order or formula of words is prescribed by law for the note, but the writing such as it is must have a meaning conformable to the foregoing definition, if the instrument is to be a note in the strict sense.

The two principal sources of the ordinary short-term notes of commerce are (1) straight loans and (2) sales of goods on time. By a straight loan we here mean a direct advance of money, or of a right to draw money, to a person against the latter's own promise to return the sum in the future (with something added for interest, of course). The straight or strict loan is distinguished from an advance made to a person by purchasing from him a piece of commercial paper made payable to him by some other person;

[18] Uniform Negotiable Instruments Law, § 320 (as in the N. Y. draft).

[19] Compare § 9.

or from an advance in any other form which amounts to a virtual though not a direct loan. The great volume of short-term straight loans in a country are of course made by the banks to their clients in all lines of business. Presumably a note is given the bank for every loan of this type. If the loan is " on call " or on demand, a demand or sight note—which is simply one payable at any time when demand for payment is made—or a one-day note, will be given. In the case of the call loan in New York, the borrower is entitled to notice on the day preceding the demand. If the loan is for a specified period, the note will usually be made to fall due at the end of that period, though it might be understood that a loan is to run for a longer time than the first note. This implies a right or privilege of paying off the first note by making a second. Sometimes loans which are to run for a considerable though indeterminate period will be evidenced by demand notes. The makers of notes often effect their loans by disposing of them either to a broker or through a broker.

As indicated, sales of goods on time are a second important source of short-term notes. Such sales also give rise to long bills of exchange, where the buyer of the goods is at a distance and where bills are in vogue. Also myriads of such transactions result only in a "book account" or charge against the purchaser of the merchandise upon the books of the seller. But sometimes the buyer may give the seller his note. The specimen note given at the beginning of this section might have arisen out of a sale of $500 worth of goods by Brown to Jones on 60 days' time. The chief advantage to Brown of the note, as distinguished from a mere book account against Jones, is its superior availability in Brown's hands as a means of obtaining present cash. Brown may sell the note for perhaps $495. Or he may pledge it as collateral security for a direct loan against his own note. For either of these uses a note is indefinitely

more acceptable under our law and custom than a document assigning (*i.e.*, transferring) the claim witnessed by a mere book account.

§ 8. **Checks, drafts, and exchange.**—Though the check is the most familiar of all forms of credit instruments, we give an example for the sake of completeness.

No. 223 New York, June 15, 1913.

THE FIFTIETH NATIONAL BANK OF NEW YORK

Pay to the order of Charles D. Brown $275.00

Two Hundred and Seventy-five .....$\frac{00}{000}$ Dollars.

EDWARD F. JONES.

A check is to be defined as (1) a bill of exchange (2) drawn on a bank (3) payable on demand. That is, a check as a legal instrument is a particular sub-class under bill of exchange.[20] The ordinary form of domestic bank check specifies no time of payment. Any negotiable instrument which expresses no time of payment, is payable on demand. Checks are subject to the rules which govern bills in general, but there are certain subsidiary laws which apply to checks alone.

The terms "promissory note," "bill of exchange," and "check" stand for definite legal concepts, and are given formal definitions in statutory law. But the term "draft" has neither a fixed legal nor commercial significance, beyond the fact that it always refers to an instrument that is drawn upon a drawee and therefore partakes of the nature of a bill of exchange. There are cases where instruments which do not conform to the legal requirements of a bill of ex-

[20] Compare the Uniform Negotiable Instruments Law, as already cited, § 321.

change and which have therefore been denied the name bill, are still spoken of as drafts by the courts. The best we can say of the word is that it is a loose synonym for bill of exchange, but that when it is used in a distinctive sense it usually means a bill drawn on a bank, whether at sight or for a term, whether drawn by another bank or by a merchant, and excludes the bill drawn by merchant on merchant. A Chicago bank's sight bill on its New York correspondent would virtually always be called a New York draft.[21]

As a term for commercial paper the word "exchange" is commonly used to designate bills, drafts, or checks *drawn in one place upon another place.* A promissory note held by a payee in one place but payable by a maker in another place, might possibly be called exchange, but the word is not usually thought of as covering such instruments. Exchange takes its geographical name from the place upon which it is drawn, or where it is payable. Thus Chicago, New York, or Paris exchange, consists respectively in bills drawn on persons, firms, corporations, or banks, in these places, regardless of the place of origin of the drafts. Local checks, because they are local, that is, drawn on a bank in the same place as the drawer himself, are never called exchange, unless they chance to migrate to a distant place and thus in effect cease to be "local."

[21] In "Smith's Financial Dictionary" (New York, 1908), it is stated "there is practically no difference between a bill of exchange and a draft. The term bill of exchange, however, is commonly applied to an order for money payable in a foreign country, whereas the term draft is applied to an order payable within the country of its origin." This hardly seems to describe such usage as there is. The bills of American banks on their English correspondents are often called "sterling drafts," and bills drawn by merchants on foreign banks under letters of credit are also called drafts.

CHAPTER II

THE NEGOTIABILITY OF COMMERCIAL PAPER

§ 9. **Negotiability.**—Bills and notes are called "negotiable instruments" and possess, as we say, the legal attribute of *negotiability*. We have here a subject which is capable of comprehensive explanation only in a technical legal treatise. It is highly desirable nevertheless for the student of exchange to gain some idea of the meaning and effect of the negotiability of commercial paper. We venture to discuss the more general aspects of the subject in the present chapter. Passing over certain inexact commercial uses, or misuses, of "negotiable" as a mere synonym for transferable or again for readily saleable, we find two meanings commonly attaching to the term at law, one lax and the other strict. The lax meaning is—transferable by indorsement and delivery so as to give the transferee (or one to whom transfer is made) a right of action in his own name. In this sense the term may be predicated of various types of documents, receipts, and warrants calling for the delivery of money or of goods, but cannot of course be predicated of actual goods, which are unsuitable for indorsement. In its strict meaning the term includes all this and also an additional element of peculiar interest and importance. The tremendous circulation attained by commercial paper may be said to be founded upon its peculiar and strict negotiability.

To proceed with an explicit statement, negotiability in the strict sense, namely, the legal character peculiar to what is known as commercial paper, means the legal attribute of transferability under laws which make it possible, *first*, that the transferee may sue in his own name; *second*, that the rights of the transferee may under some circum-

stances become superior to the rights which the transferor had to convey. Stated in another way the second point means that the one who receives a note or bill may in many cases be able to collect on it when the one who transferred or sold it to him could not collect or enforce payment. Or again, the party obligated on the instrument may have certain defenses which would be good against the transferor while the transferee might be exempt from them.

Returning to the first mentioned and less essential feature of negotiability, in present law most ordinary contract rights, for the use or receipt of property or the receipt of money, may be transferred by the party who has them to a third party, so that the latter may exercise these rights, but no more than these, against the person bound by the contract. In this case the transferee is merely substituted in the place of the transferor, as far as the latter's rights are concerned. The transfer of contract rights is specifically known as assignment, and the transferee as an assignee. In the absence of statutory provisions to the contrary, an assignee can sue the obligor only in the name of the assignor. The power of the transferee of a negotiable instrument to sue upon it in his own name is then one point of contrast between negotiability and assignability. This point is of less importance than the second mentioned feature of negotiability because it concerns only a matter of procedure rather than the substantive rights of the holder, and also because statutes are common to-day which give assignees the power to sue in their own names.

With regard to the second feature of negotiability, it may be stated as a general rule of law that a person who has a right, title, claim, or interest, cannot give to his transferee any better right or title than he himself has. That which he does not himself hold he cannot transfer. Thus if A, while appearing to hold a good title to a piece of land or a horse, really has no title, or has a title subject

to liens or liabilities, or to defeat, B to whom he sells will in general obtain either no title or a title suffering from the same defects, as the case may be. Again, if A has a contract right to receive money from C, and C can for any reason, such as counterclaim, lack of consideration, or fraud, defend himself against payment to A, he can use precisely the same defenses against B, the assignee of A. It is a general though not universal rule of law that a transferor can confer upon his transferee no better rights than he himself has. The chief, though not only, articles of ownership and agreement which are exceptions to this rule are negotiable instruments and money. This brings us to the subject of the defenses against payment of negotiable instruments.

§ 10. **The defenses against payment of negotiable instruments.**—The defenses which an obligor or ostensible obligor upon a negotiable instrument may set up against its holder fall into two classes: (1) Real or *absolute* defenses, or those good against any holder whatsoever or good against all the world; (2) *personal* defenses, or those good against some persons but not against a person known as the "holder in due course." The latter is a person who has purchased, or given value for, the instrument before its maturity, and who is without notice of any infirmity in it or defect in the title to it of a party who has held it prior to himself. He is often called the "innocent purchaser for value." It is rare in actual business life for a person or company that holds a note not to be an example of a holder in due course. A person who derives his title through a holder in due course without himself being able to qualify as such, will, if he is not himself a party to some fraud or illegality affecting the instrument, enjoy the same exemption from personal defenses.[1]

[1] On the holder in due course, see "Uniform Negotiable Instruments Law" (as already cited), Article V.

The chief of the obligor's absolute defenses are: (1) That the instrument is a forgery; (2) that he, the obligor, is a person without legal capacity to make contracts; or (3) that the instrument originated in circumstances which make it totally void under a special statute, such as a Pennsylvania statute which make notes given on account of a gambling debt utterly void. The leading personal defenses are: (1) Lack or failure of consideration; (2) set-off or counterclaim; (3) fraud; and (4) duress. Suppose that A has made and handed over his note to B for a horse which it is agreed B will deliver to A, but that thereafter B in fact fails to surrender the animal. Then B could not collect on the note because of A's defense of "failure of consideration." But the defense is personal. For if B should indorse the note to C, C being without knowledge of the defects in B's rights and being in other respects also a holder in due course, C can collect from A. C is exempt from this personal defense. To make a long story short, the immunity of the innocent purchaser for value from a number of defenses which might be good against parties prior to him is the essential feature of negotiability. If, in the instance of the foregoing illustration, B, who promised to deliver the horse and failed, had held merely some ordinary or non-negotiable contract claim for money against A, and C became his assignee, C could no more collect than B, no matter how "innocent" he might be nor what consideration he had given B.

As has already been intimated, money is like the negotiable instrument in that a person without title to it or wrongfully in possession of it may transfer it to another, who takes it innocently and for a consideration, with the effect of giving this other perfect rights, both as against the original owner and as against all the world. Suppose B steals a $20 gold piece from A and spends it in C's store. If C is without knowledge of the theft A cannot take the

coin away from him when the facts are found out or proved. Money is doubtless the original essentially negotiable article in the world. The only other class of things that usually possess strict and full negotiability are the particular forms of contracts for money known as bills and notes. In their negotiability these contracts are made like the money in which they are dischargeable. Documents such as bills of lading and warehouse receipts, which call for the delivery of goods, may, however, be given, by statute, some, or all of the characters of strict negotiability. In the first case they are properly known as quasi-negotiable.

The negotiability of commercial paper is of the greatest importance to the freedom of its circulation. When a banker or a broker buys an acceptance from some person, and thus becomes one in the series of its holders, he is not forced to inquire whether a consideration was given by every prior holder to obtain the instrument, or whether any counterclaim against a prior party, or fraud concealed somewhere in the history of the instrument, invalidates his rights. Were the instrument a mere assignable contract for money, he would be compelled to have a care regarding these matters. If checks, bills, and notes were merely assignable, it would seem out of the question for them to obtain the enormous significance which they now possess as substitutes for money in the traffic of the world.

§ 11. **Negotiation.**—The act of transferring title or ownership in a negotiable instrument is known as *negotiation.* If an instrument is, as it stands, payable to a specified person, negotiation can be accomplished only by indorsement and delivery. If it is payable to bearer, delivery alone will suffice. Indorsement consists in the payee's writing his signature (with or without additional words conveying instructions or qualifying liability) upon the bill or note, or sometimes upon the "allonge." The latter is a sticker (rarely needed) which is attached, properly

upon the back of the instrument, to take additional signatures when there is insufficient space for them remaining on the back of the bill or note itself. The regular place for an indorsement is upon the back of the instrument, and to follow good usage the first indorser should write his signature across the reverse of the left-hand end, other indorsers being expected to place theirs beneath this and in the order of time in which they indorse. However, the stamped indorsements which are very common to-day are put on without much regard for the rule, except that they are always impressed on the back of the instrument.

As classified in the Uniform Law, indorsements are (1) special, (2) blank, (3) restrictive, (4) qualified, and (5) conditional. A *special indorsement* is one which specifies the person to whom, or to whose order, the instrument is to be payable. Thus:

Pay to the order of

John Doe.

Richard Roe.

Here the indorsement of John Doe will be necessary for further negotiation. Thus:

(1) Pay to the order of
John Doe.

Richard Roe.

(2) Pay to the order of
Tom Jones.

John Doe.

The first indorsement, being special, makes necessary John Doe's signature for any further negotiation. The second indorsement might then appear as above.

A *blank indorsement,* or indorsement in blank, is one which specifies no payee. If we were to change the second indorsement above into one in blank, the back of the bill or note would appear as follows:

(1) Pay to the order of
John Doe.

Richard Roe.

(2) John Doe.

Blank indorsements are commonest perhaps when the payee negotiates a check to his bank for the credit of his account. The legal effect of a blank indorsement is to make the instrument payable to bearer and to make it capable of further negotiation by delivery only and without additional indorsement. The bearer or holder of an instrument so indorsed may be required, however, to place his indorsement upon it at the time of making a further negotiation. The purpose here would be to make the record clear and also to make this person assume the indorser's liability on the instrument. A bill or note indorsed which is in blank may easily come to bear a subsequent special indorsement.

Omitting consideration of the third and fifth kinds of indorsements, into whose technicalities we had better not go, it remains to speak of the *qualified indorsement.* This is constituted by adding to the indorser's signature the words "without recourse" or words of similar import. Thus:

Pay to the order of
John Doe.

Richard Roe.
Without recourse.

This indorsement releases Roe from such of his liabilities as are imposed upon him by law as a part of the "indorser's contract," but leaves him with certain other liabilities which still belong with him as a "vendor" or seller of the instrument. This indorsement has itself no effect upon the liability of other indorsers, and no effect upon the negotiability of the instrument. This brings us to the subject of the liability of parties.

§ 12. **The liability of parties.**—The parties liable to make payment on negotiable instruments are divisible into two main classes. The first class consists of those that are, according to the terms of the instrument, unconditionally bound to pay, and includes the maker of a note and the acceptor of a bill. These parties are frequently spoken of as "principal obligors," and it is from them alone that payment is expected in regular course. The second class contains all parties who are liable to pay only on condition that the principal obligor dishonors the instrument, whether by non-payment in the case of a note or bill, or by non-acceptance in the case of a bill. Any one of these parties is in the position of representing to the holder that the principal obligor will honor the instrument. He furthermore represents that if the principal obligor refuses to honor it, then he himself will pay it, provided the holder has made a suitable attempt to procure honor by the principal obligor. The principal obligor is by his own acknowledgment unconditionally bound to pay, in the sense that he has made himself obligor on an unconditional promise

or order (compare the definitions already given of the note and the bill). This does not mean that he may not avail himself of the defenses against payment heretofore discussed, when these defenses exist, but means that apart from such defenses his liability is not conditional upon the happening of any event, and not conditional upon the failure of some other party to pay. The following conspectus shows the parties to negotiable instruments, classified according to liability.

In this tabulation *primarily* is used in the sense of *unconditionally*, and *secondarily* in the sense of *conditionally*.[2]

PARTIES PRIMARILY OR UNCONDITIONALLY LIABLE.—(Parties expected in ordinary course to pay the instrument.)

The maker of a promissory note.

The acceptor of a bill of exchange.

PARTIES SECONDARILY OR CONDITIONALLY LIABLE.—(Parties not expected in ordinary course to pay the instrument.)

The ordinary indorser of either a note or a bill.

The drawer of a bill, both before and after the drawee's acceptance of the instrument.

PARTY NOT HAVING LIABILITY.—The drawee of a bill prior to his acceptance of the same.

It has already been explained that the drawee of a bill has no liability whatever on the instrument until he gives his acceptance, even if he owes the drawer money and even if the latter has ever so valid a commercial expectation that the bill will be honored. This applies to checks drawn

[2] A commonly accepted legal classification of parties, differing in the place assigned the drawer of a bill prior to acceptance, will be discussed in the note at the end of the present section. § 3 of the Uniform Law states: "The person 'primarily' liable on an instrument is the person who by the terms of the instrument is absolutely required to pay the same. All other parties are 'secondarily' liable."

on banks unless a special statute runs to the contrary. That is, the payee (other than the drawer himself) of a check has no action against the bank if it refuses to pay, even when the drawer is in funds with the bank. What he has is recourse on the drawer. As a matter of convenience we speak of the drawee as a party even prior to his acceptance, though before this act he is not a real contracting party. If we are to speak of him as a party at this time it becomes incumbent upon us to point out that he has for the time being no liability, conditional or unconditional.

With the warning that we have here to do with an extensive and difficult subject and that this book attempts only to give certain more general explanations which ought to be understood by the student of exchange, let us consider the liability of indorsers of bills and notes, and of drawers of bills. When the present holder and payee of a negotiable instrument indorses it and negotiates it to another person he becomes (1) an indorser, and (2) a vendor (or seller) of the instrument as a "chattel." In each of these capacities he incurs distinct liabilities. As an indorser he is under a liability to pay the full face value of the instrument to any holder subsequent to himself, but this liability is secondary and depends upon the happening of three very precise events. These are (1) proper presentment, (2) dishonor, and (3) due notice of dishonor.

The act of taking a negotiable instrument to the principal obligor and demanding that he make payment, and the act of taking a bill of exchange to the drawee and demanding that he accept it, are both known as presentment. The first is *presentment for payment* and the second *presentment for acceptance.* The promissory note can, of course, experience but one kind, that is, presentment for payment. With respect to bills of exchange, there is, as has already been explained, in regular course no occasion for the acceptance of sight bills as a formal act distinct from

payment. Long or time bills fall into two subclasses: (1) Those payable a stated period after sight or demand; (2) those payable a stated period after date. (Bills payable on a specified future date would belong to this second subclass if it were customary to draw them.) In the case of the first subclass, presentment for acceptance is required. In the instance of the second subclass it is not required, with two exceptions, namely (a) where the bill expressly stipulates that it shall be presented for acceptance, and (b) where the bill is drawn payable elsewhere than at the place of business or residence of the drawee.[3]

When we speak of presentment being required, we mean that it is required in order to prevent the parties secondarily liable from escaping their liability; or, otherwise expressed, in order "to bind the parties secondarily liable." *Presentment for acceptance* of bills payable a designated period after sight is necessary for this purpose. In general it is not necessary in the case of any other class of bills. But most long bills are in fact worded as payable a specified time after sight. The presentment of these bills is also necessary in order to fix the date "of sight" and from it the date of maturity.

Speaking broadly, the party secondarily liable is liable on the general condition that payment cannot be obtained from the principal obligor. But speaking more specifically, he is liable on the three special conditions, provided by law, which are, (1) presentment, (2) dishonor, (3) notice, that is, notification of dishonor. The object of the rule that the holder of the instrument must make proper presentment or presentments to the principal obligor is to prevent the holder from having recourse upon the parties secondarily liable without first having made a proper effort to obtain payment from the party primarily liable. By a "proper"

[3] See Uniform Law, § 240, and British Bills of Exchange Act, § 39.

presentment is meant specifically one which is made at the time, the place, and in the manner prescribed by law as necessary to make the presentment serve as the first condition for charging the secondary parties with their liability. There are a number of detailed rules governing proper presentment. To illustrate their character, suppose a note falls due on the business day of Wednesday, March 10. Presentment for payment must be made on this very date, and not on March 9, or March 11, if the parties secondarily liable are to be bound. A technically improper presentment is wholly worthless for binding these parties. On the other hand, the reader will of course understand that failure to make proper presentment for payment does not in the least affect the liability of the principal obligor. This liability endures until the statute of limitations brings it to an end.

Proper presentment having taken place, the second event which must occur to bind the parties secondarily liable is dishonor. Dishonor is either: (1) The refusal of the principal obligor on a note or an accepted bill, or a bill due without presentment for acceptance, to make payment when it is presented for payment; or (2) the refusal of a drawee to accept a bill.[4] The first is called *dishonor for non-payment,* and the second *dishonor for non-acceptance.* If a bill is dishonored for non-acceptance it is not necessary that it should also be dishonored for non-payment in order that the drawer and indorsers should be bound. Where presentment for acceptance of long bills is, as explained above, not required of the holder, he may make such a

[4] A bill or note may be technically dishonored for non-payment where it is overdue and unpaid and the conditions are such that the law excuses presentment, as for instance "where after reasonable diligence presentment . . . cannot be made" (§ 142 of the Uniform Law). A bill also becomes dishonored for non-acceptance where presentment for acceptance is excused and the bill is not accepted (§§ 143 and 246).

presentment voluntarily. If dishonor is then experienced, this (with notification) serves to charge the parties secondarily liable.

If dishonor has taken place, the third condition necessary to bind the parties secondarily liable is that *due notice of dishonor* be sent them. Among the numerous rules relative to notice, the most important perhaps are that it must, except under special circumstances, be given or started by mail within one business day after the dishonor takes place, and that no party secondarily liable is charged unless notice be given him or his agent. Notice of dishonor may be dispensed with when "after the exercise of reasonable diligence, it cannot be given to or does not reach the parties sought to be charged" ("Uniform Law" § 183). And delay in giving notice is excused "when the delay is caused by circumstances beyond the control of the holder and not imputable to his default, misconduct, or negligence. When the cause of delay ceases to operate, notice must be given with reasonable diligence" (§ 184). Delay in making presentment for payment is also excused under the same rule.

The holder's demand upon a party secondarily liable, for payment of an instrument dishonored by the drawee or by the principal obligor, is called *recourse*. The holder may take recourse upon any one of the parties secondarily liable. When one of these pays, this one may in turn take recourse upon the party from whom he himself received the instrument or upon any other party secondarily liable prior to himself. Meanwhile the obligations of the party primarily liable remains (except in the case of the unaccepted bill), and the last party secondarily liable to pay the instrument has this to fall back on, for whatever it is worth, this being just what he had when he passed the instrument on for a consideration. Since one party secondarily liable may become liable to another such party subsequent to him, notice

of dishonor may also be passed between parties secondarily liable under rules too detailed for consideration here.

The rights of the parties secondarily liable, to have presentment take place and have notice of dishonor sent them, may be waived by them. A *waiver* to this effect is sometimes embodied in the wording of a bill or note, or is printed over the place on the back for indorsements. In this case all general indorsers agree to the waiver. If a waiver is written in with his indorsement by an individual indorser himself, it is his individual waiver only. In the case of a long bill dishonored for non-acceptance, the right of reimbursement in the sum of the full face value of the instrument takes immediate effect and is not held in abeyance until the date of maturity of the instrument.

A *protest* is a formal certificate of dishonor, and to protest means to secure this certificate. A notary public is usually procured to make the certificate of protest and in it he cites the legally relevant facts of the dishonor, and thus creates evidence independent of the mere word of the holder himself. This certificate may, however, be made by any reputable resident of the place where the instrument is dishonored, in the presence of two or more credible witnesses. Under the American and the British law, a *foreign bill of exchange* must be protested at the time of its dishonor if the drawer or the indorsers are to be bound. The statute defines a foreign bill as other than an inland bill, and the latter as "a bill which is or on its face purports to be both drawn and payable within this state" ("Uniform Law" § 213). In a legal sense, a bill drawn by a person in New Jersey on one in New York is a foreign bill. While in the case of notes and inland bills, protest is not technically necessary, it is often secured nevertheless to serve as better evidence of the facts of presentment and dishonor than the mere affirmation of the holder himself.

A person may negotiate a bill or note and still avoid

indorser's liability; and this in two ways. First, if the instrument is payable to bearer, he may effect the negotiation by the mere act of delivery without indorsement, provided the party taking from him is willing to receive the instrument without his indorsement. Second, he may give a "qualified" indorsement or indorsement "without recourse." But he has certain other liabilities of which he cannot divest himself in these ways. The negotiation of a bill or note constitutes a sale, and the transferor in his capacity as a vendor or seller makes, by implication of law, certain warranties concerning the instrument he sells. These were at first simply the vendor's warranties determined by the common law relating to the sale of goods and chattels, but are now expressly listed in the Negotiable Instruments Law as follows: "Every person negotiating an instrument by delivery or by a qualified indorsement, warrants: (1) That the instrument is genuine and in all respects what it purports to be; (2) that he has a good title to it; (3) that all prior parties had capacity to contract; (4) that he has no knowledge of any fact which would impair the validity of the instrument or render it valueless. But when the negotiation is by delivery only, the warranty extends in favor of no holder other than the immediate transferee" ("Uniform Law" § 115). A vendor's warranty amounts to a representation, whether expressed or implied, as to the character of the article sold, which representation under the law takes the position of a condition of the agreement of sale. Under the statute the *implied* warranties, or the warranties implied in the mere act of negotiation, are those set forth in the section just quoted. The obligation of the seller of the instrument under these warranties is to make good to the buyer any pecuniary damage which he may suffer by reason of any of the representations proving untrue. The measure of this damage, briefly stated, is the difference between what the

holder is actually able to obtain from the instrument under a failure of the representations, and what he would have received had all the representations proved true. We cannot develop these matters at any length, but before passing on may give one illustration which may help bring out their meaning. Suppose an instrument sold by A to B is a forgery without A having knowledge of the fact, and suppose A indorsed to B "without recourse." When the facts are exposed and collection from the ostensible principal obligor becomes impossible (since he has an absolute defense), B cannot have recourse on A as an indorser, but he may get damages from A as a vendor, on the grounds of the failure of A's (implied) representation that the instrument was genuine. If B could have come back on A as the giver of an unqualified indorsement, he would have been entitled to collect the full face value of the instrument. When he comes back on A in fact as a vendor, he can claim instead damages, probably not far from the same sum.

To summarize, the indorser's obligation (when he becomes charged with it) is to pay the full face or maturity value of the instrument on demand (1) to any holder subsequent to himself who has been unable to obtain payment from the principal obligor or drawee, as the case may be, or (2) to any indorser subsequent to himself who has had to pay the instrument under this rule. The regular indorser is also a seller of the instrument and he is liable under the vendor's warranties. Speaking now merely of liabilities, a general indorsement (or one not qualified by the words "without recourse") has the effect simply of adding the indorser's to the vendor's liabilities. With regard to presentment, dishonor, and notice of dishonor, the technical requirements explained in the preceding pages as necessary for binding the parties secondarily liable, are necessary for fastening upon these parties their liabilities as

indorsers, but are not necessary to hold them to their vendor's liabilities.[5]

[5] A classification of parties liable, common in legal treatises and given for instance in *Norton on Bills and Notes* (3d ed., p. 157), differs from the one advanced in our text, in that it places the drawer of a bill prior to its acceptance among the parties primarily liable. Thus:

PARTIES PRIMARILY LIABLE:

The maker of a note.
The acceptor of a bill.
The drawer of a bill, prior to its acceptance.

PARTIES SECONDARILY LIABLE:

The indorser of either a note or a bill.
The drawer of a bill, subsequent to its acceptance.

Here the drawer of a bill while the instrument is still not accepted is thought of as primarily liable because (apart from indorsers, and there may be no indorsers) he is the *only* person in fact liable. And the drawer's liability is considered to become secondary only after acceptance has provided the bill with some one else as the party primarily liable.

The issue between the classifications depends upon the meaning given the word "primarily." But the classification presented in our text would seem to be agreeable to the language of the statute, which says "the person 'primarily' liable on an instrument is the person who by the terms of the instrument is absolutely required to pay the same. All other parties are 'secondarily' liable" (§ 3). Nothing could be more obvious than that the drawer of an unaccepted bill is not absolutely bound to pay it. He is bound solely on the condition of presentment, dishonor, and notice. He is secondarily liable. There is no party primarily liable. The association of the drawer of an unaccepted bill with makers and acceptors is unfortunate and misleading to say the least, because the character of his liability is not theirs at all but on the contrary is that of the indorsers!

CHAPTER III

DISCOUNT AND INTEREST

§ 13. **Future sum and present price.**—An understanding of the elements of the subject of discount and interest is essential to the student of the exchanges. In this book it will not be necessary to make the explanations on this topic run back into the foundations of the phenomenon of interest on capital. We may take our start from the premise that every loan, advance, or investment of money, undertaken as a "business" venture, is made with the hope that it will yield that type of gain known as *interest*. Every operation of this character involves an outlay of money (or of money's worth) for a deferred return in money (or money's worth). The outlay may consist in a single item of expenditure made all at one time, as in the case of the price paid for a bond or a note; or it may consist in a plural number or series of expenditures made at various intervals, regular or irregular, as in the case of most investments in actual properties as distinguished from those in securities. The return also may consist in a single item of receipts, or in a plural number or series of such items. Interest calculations are simplest in form where the outlay and return are both single items, as happens usually to be the case where short-term commercial paper is involved. In dealings in this paper, the outlay consists in the price paid for a note or a bill, or in the amount loaned when a note is taken, and it is practically universal for this outlay to be paid over in a single sum all on one day. The return consists in what is received from the purchased note or bill,

or from repayment of the loan, usually an amount repaid as a single item in the sense that it is all repaid on one day or at one time. The return in any number of types of investment is, of course, made up of a series of future receipts. In the case of long-term money contracts, interest at least is always payable in installments, and sometimes principal is so payable.

We shall feel justified here in confining our attention to the problem of interest and discount as it appears where there is a single outlay followed by a single return, except that we should give a word to the bank loan with interest payable in installments. To illustrate such a loan suppose the Bank of A lends John Doe $1,000 for one year at an interest charge of 5% per annum payable quarterly. The outlay and returns of the bank in this operation will evidently be as follows:

Outlay		Returns	
On first of year.....	$1,000	End of first quarter	$ 12.50
		End of second quarter	12.50
		End of third quarter	12.50
		End of fourth quarter	1,012.50

The interest for a year is 5% of $1000, or $50, and this divides into quarterly installments of $12.50 each. The $1012.50 due at the end of the fourth quarter is the $12.50 of interest then payable plus the $1,000 of principal, also payable at precisely the same time. The borrower in this illustration would probably give the bank his note for $1,000 bearing interest at 5% payable quarterly. The bank in effect buys this note for $1,000 on the day of its issue. In doing this it makes an investment at 5%.[1] (A slight change in the illustration would make the calculation of the

[1] The rate of interest earned in this investment is strictly speaking *5% per annum compounded quarterly,* which is a slightly higher rate than 5% simple interest.

rate of interest earned in this investment a somewhat more complex question. Suppose the bank bought this note for $980 on the day of its issue. The outlay would now be $980 instead of a thousand, but the returns would remain unchanged as shown in the schedule. The rate of interest named in the note would be 5%, but the rate of interest earned in the investment made by buying the note would be very close to 7.28% simple interest, or better than 7¼%. Examination of this type of problem would involve us in too lengthy a consideration of interest.)

We shall deal henceforth only with the case of the single outlay and single return. We may call the outlay made to buy a bill or note, the *present price,* and the return which the instrument pays at maturity, the *future sum.* It remains to point out that with respect to the wording of an instrument there are two ways of expressing or indicating the future sum. For this sum may be set forth (1) simply and directly as such, or (2) as a "principal sum" plus contractual interest at a specified rate. To illustrate, the following two notes promise the same future sum, but express this sum in the two different ways.

[1]

$1,010.00 New York, N. Y., July 1, 1916.

Sixty days after date, I promise to pay to the order of William Hill, One Thousand and Ten Dollars.

JAMES ALEXANDER.

[2]

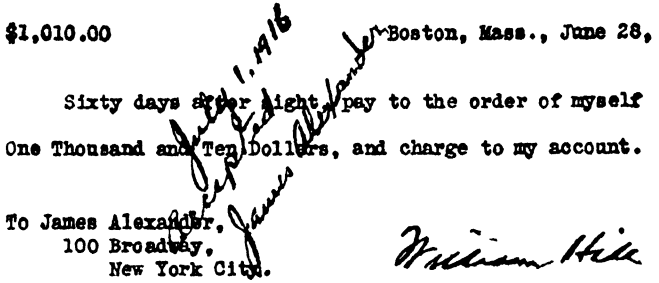
$1,000.00 New York, N. Y., July 1, 1916.

Sixty days after date, I promise to pay to the order of William Hill, One Thousand Dollars with interest at the rate of 6% per annum.

JAMES ALEXANDER.

Since the interest promised in the second of these notes is $10, both instruments have precisely the same maturity

value. The following acceptance by James Alexander will also be a practical equivalent of either of these notes.


$1,010.00 Boston, Mass., June 28, 1916.

Sixty days after sight, pay to the order of myself

One Thousand and Ten Dollars, and charge to my account.

To James Alexander,
100 Broadway,
New York City.

Only one of the three instruments given here is an interest-bearing contract in the sense that a part of what it promises to pay is called interest by name in the words of the contract. Neither the first note nor the acceptance bear interest in this sense. They do not promise $1,010 plus interest for sixty days at some rate or other (as the legal rate in the state in question), but promise this sum without addition of any sort. To give them this effect it is not legally required that these instruments should contain the phrase "without interest," though the presence of these words will do no harm.[2] The actual rate of interest made in an investment in any one of these instruments depends on the price paid for it, and with the same price paid on the same date this rate of interest will be the same no matter which one is purchased. If $1,000 is paid for

[2] Discussions of the law governing the obligation to pay interest before maturity, and after the due date on overdue instruments, may be found in the leading legal texts on bills and notes. *See also* the articles on "Interest" in the "Century Digest," or in the "American and English Encyclopedia of Law," or in other similar compilations. "Where no interest is reserved [*i.e.*, specified] in a note it will draw interest *after maturity* at the legal rate," [*i.e.*, the rate set by statute]. Randolph, "Commercial Paper," § 1712.

any one of the three on July 1st, the buyer makes an investment at 6%. If $1003.31 were paid, he would make an investment at 4%.

As regards business custom, notes appear in both the non-interest-bearing and the interest-bearing form. Where a note is given to a bank at the time of a straight loan for a designated period, it is likely to be written in the interest-bearing form. Where it is prepared for sale at the best present price obtainable in the money market it is most suitable it should be in the non-interest-bearing form and be ready for sale at a discount rate. So far as the writer's knowledge extends, the regular type of bill of exchange which is dischargeable in a stipulated sum of the money of the country where it is payable, never takes the form of an interest-bearing contract, no matter what its term of life. That is, it never names a "principal sum" which is to be paid with an addition of interest for elapsed time at a specified rate. It simply names in full the amount payable at maturity.[3] The reader understands of course that an allowance on account of interest is made whenever any long bill is purchased, by the simple method of reducing the price paid for it.[4]

§ 14. **The rate of discount and the rate of interest.**—The negotiation of a bill or note prior to its maturity is a virtual sale of a future sum of money. This sale takes place at a reduced present price. *Discount* may be defined as the amount deducted from a future sum to arrive at its present price. Damaged commodities sold at a reduction from a list price are said to be offered at a discount. A depreciated currency circulating at a rate below its par in some other form of money is said to be at a discount. Thus there are various kinds of discounts, but the discount which

[3] For a special type of bill of exchange with an interest clause see the one described in § 72.

[4] *See* second problem in part B of § 15.

concerns us here and which is a variant form of *interest,* is a deduction made for futurity. The futurity of an amount due on an obligation is a sort of detrimental circumstance. On account of it something is "knocked off" a future sum to find its present equivalent.

The *rate of discount* is the percentage per annum which the discount bears to the future sum; or again, it is the difference between any specified future sum and its present price, expressed as a percentage per annum of the future sum. To illustrate, if X sells Y an acceptance upon which $1,000 is due in sixty days, for a consideration of $990 present cash, ten dollars, or the difference between these two quantities, is the discount on $1,000. It is the discount for a deferment of the future sum by one-sixth of a year. Discount is proportional to time to elapse, and this is a discount at a rate of $60 for a full year. $60 being 6% of $1,000, the "rate of discount" is 6%. We come to the same result by reasoning that $10 is 1% of $1,000, and that if a 1% discount is deducted for a deferment of one-sixth of a year, 6% is deducted by the year or per annum.

If A should lend B $990 for one-sixth of a year on the understanding that B should pay back $1,000 in complete discharge of the loan, we would speak of the $10 excess of the amount returned above the amount advanced, as the "interest" on the amount advanced. $10 is here the interest *on the $990* for a sixth of a year. This interest is then running at a rate of $60 to the year. 60 is $6\frac{1}{100}\%$ of 990, and the rate of interest is $6\frac{1}{100}\%$, contrasting with the rate of discount which is 6% with the same future sum and present price.

The loan by A to B is just as much the giving of a present price for a future sum as was the purchase by Y of the acceptance from X. In both cases we have a person giving up $990 of present money to receive $1,000

deferred one-sixth of a year. In one case the difference between these two quantities is spoken of as interest, in the other as discount. It appears then (always confining ourselves to the case of the single outlay for the single deferred return) that interest is the difference between a future sum and its present price when this difference is thought of as a fraction of the present price, and discount is the identical difference when thought of as a fraction of the future sum. To summarize: the difference between a future sum and its present price expressed as a percentage per annum of the present price is the rate of interest, and expressed as a percentage per annum of the future sum is the rate of discount. The rate of discount is not always conceived of in precisely this way,[5] but this is in fact the correct definition of that rate reduced to its ultimate and simplest terms.

§ **15. Illustrative problems.**—Practical problems of discount and interest may be divided into two classes. In one class the rate of discount or the rate of interest is given among the data, in the other the question is to find one of these rates. A number of specimen problems are put and solved in this section. For the sake of convenience, we shall follow the more common American method of treating the year as 360 days, and shall not assume days of grace, these having been abolished under the American Uniform Negotiable Instruments Law. (In England the year is handled as being 365 days, and days of grace, three in number, are allowed by law on all time bills and notes unless grace is waived.) Using the term "money rate" to signify either a discount or an interest rate, group A of the following problems consists of those with the money rate given among the data.

[5] Compare § 17.

A.

(1) *An interest problem.*—Given a loan of $5,000 for three calendar months or for 90 days (both being treated as ¼th year) with interest at 5%, what sum will be required to discharge the loan at maturity?

Interest for one year on $5,000 at 5% would be
5/100 or .05 x 5,000 or $250.00
Interest for 90 days = ¼ x 250 or 62.50
Amount required to discharge the loan:
Principal $5,000.00
Plus interest 62.50

$5,062.50 *Answer.*

If the question were, "What is the amount due at maturity on a 90 days' note for $5,000, bearing interest at 5%?" we should get the same answer by the same method.

(2) *A discount problem.*—A 90 days sight bill for $20,000 is bought by a banker on the day of acceptance on the basis of a discount rate of 4%. What does the banker give for the bill, or what are the proceeds or "avails" of the discount?

On the day of the discount the bill has 90 days or ¼th year to run.
The discount for a year would be 4% of $20,000,
or .04 x 20,000 ..... $800
The discount for ¼th year = ¼ × 800 = ... 200
The price paid for the bill:
The future sum $20,000
The discount 200

$19,800 *Answer.*

It is evident we may also find the discount as follows:

Discount for one year = 4%.
Discount for ¼th year = 1%.
1% of 20,000 = 200.

(3) *An interest problem.*—With the same bill and same date of purchase as in question 2, suppose the banker buys the instrument at a price to yield him a rate of interest of 4%, what would he pay for it? (This question might be worded, what is the *true present worth* of this bill on the basis of an interest rate of 4%?)

The price paid for the bill is the banker's outlay, and the amount received on it at maturity is his return.

With the rate of interest at 4% per annum, the interest for 90 days will amount to 1%.

Therefore the return must exceed the outlay by 1% of the outlay (*i.e.*, there must be a 1% gain on the outlay).

The return then = 101% of the outlay.

Therefore the outlay must be $\frac{100}{101}$ of the return.

$\frac{100}{101} \times \$20{,}000 =$ .....$19,801.98. *Answer.*

Another statement: There must be $1.01 of return for each $1.00 of outlay, and 20000 contains 1.01, 19801.98 times, and therefore for 20000 of return there must be 19801.98 of outlay.

The present price of the bill in question is

on a 4% discount rate $19,800
on a 4% interest rate 19,801.98

(4) *A discount problem.*—What would a 90 days' sight bill for £20,000 sell for in England on the day of acceptance, on the basis of a 4% discount rate?

The bill has 93 days to run, there being three days of grace.

The discount for one year would be 4% of £20,000 or £800.00

The discount for 93 days is $\frac{93}{365} \times 800$ or..... 203.84

The future sum £20,000

The discount 203.84

Price paid for the bill .....£19,796.16 (£19,796 3s. 2d.) *Answer.*

(Compare with problem 2.)

(5) *A discount problem.*—What would a 90 days' sight bill for $20,000 sell for 50 days after acceptance on the basis of a discount rate of 4%?

The bill has 40 days to run.
The discount for a year would be 4% of $20,000 or $800.00
The discount for 40 days is $\frac{40}{360}$ or 1/9 of 800 or 88.89
The price of the bill = $20,000 — $88.99 = $19,911.11
Answer.

(6) *A discount problem.*—What would a 60 days' note for $1,200, bearing interest at 5%, sell for on the basis of a 4% discount rate, if sold on the date of issue of the note?

The amount due at maturity, or future sum, is found as follows:

Principal	$1,200.00
Nominal interest 1/6 of 5% of $1,200	10.00
Future sum	$1,210.00
One year's discount on $1,210 at 4% would be..	$48.40
One-sixth of a year's discount is therefore.....	8.07
Sale price of note:	
Future sum or maturity value ...	$1,210.00
Discount	8.07
Answer	$1,201.93

(7) *An interest problem.*—What can be paid for the above mentioned note on the day of its issue, if the buyer is to gain interest at 8% on his investment in the note (assuming he holds to maturity)?

The maturity value or future sum is, as before.. $1,210
Interest at 8% per annum means 1⅓% for 60 days or 1/6th year)
Therefore the gain on the outlay must come to 1⅓% of the outlay
Or $1,210 (the return) must exceed the outlay by this 1⅓% and be 101⅓% of the outlay.

The outlay itself (or 100%) must be
$\frac{100}{101\frac{1}{3}} \times 1{,}210$, which, being solved, equals $1,194.08
Answer.

B.

(1) *A discount problem.*—An accepted bill of exchange for $5,000 payable in 90 days is sold to a banker for $4,937.50. What rate of discount did the banker charge?

The future sum = $5,000.00
The present price = 4,937.50

62.50 the difference, is the discount for one-fourth year.
4.

$250.00 the discount per annum.

The question becomes, what per cent. is 250 or 5,000?
1% of 5,000 = 50
250 ÷ 50 = 5
250 is 5% of 5,000.
Therefore the rate of discount was 5%. *Answer.*

(2) *An interest problem.*—What rate of interest did the banker make in his investment in this bill, assuming that he held it till maturity?

The answer will be very close to 5% and above 5%.
The practical man will usually consider it unnecessary to find the answer to this question.
The future sum or return = ... $5,000.00
The present price or outlay 4,937.50

The difference 62.50
This is the interest on the outlay for ¼ year.
4 × 62.50 = 250.00 = the interest for 1 year.
The question becomes, what per cent. is 250 of 4,937.50 (the outlay)?
1% of 4,937.50 = 49.375
250 ÷ 49.375 = 5.063 +

250 is 5.063% of the outlay,
and the rate of interest in the investment is
5.063% *Answer.*

(3) *A discount problem.*—A 6 months' note for $1,000, bearing interest at 6%, is sold to a banker for $1,019.70 when it has 3 months yet to run. It being known that the banker bought on the basis of a discount rate, what was this rate?

$1,000 the principal sum of the note.
the contractual or nominal interest would be
½ of 6% of 1,000, or 30.
30 the contractual interest.

1,030 the future sum, or amount due at maturity.
1,019.70 the price paid by the banker

10.30 the discount for 3 months or ¼th year.
The question becomes, what % is 10.30 of 1,030 (or the future sum), for this multiplied by 4 will give the discount rate per annum.
10.30 is 1% of 1,030.
$4 \times 1\% = 4\%$, the rate of discount. *Answer.*
(The rate of interest earned in the banker's investment is in this case .....4.06 + %).

(4) *An interest problem.*—A banker lends Smith $1,000 for 60 days, charging interest at the rate of 5%, and takes Smith's 60 days' note for $1,000, bearing interest at 5%. 30 days later the banker sells this note to a large bank on the basis of a 3½% discount rate. What rate of interest does the first banker make in his investment in this note?

Find the banker's outlay and return.
The outlay is the amount handed over at the time the note was received, or the amount of the loan, $1,000.
The return is the price received for the note in the sale to the large bank.
To calculate this price:
Principal of note 1,000.00

Interest due on it 8,33
(1/6th of 5% of 1,000)
Maturity value of note.....1,008.33
There are 30 days (or 1/12th year) to run on the note at the time of sale, and the discount taken out by the large bank will be 1/12th of 3½% of 1,008.33, which is 2.94.
Future sum 1,008.33
Discount 2.94

Sale price of note, and first banker's return.....1,005.39

Final step.

The return 1,005.39
The outlay 1,000.00

The interest 5.39
If interest of 5.39 is earned in 1/12th year, or the time during which the first banker held the note, the interest per annum is 12×5.39, or 64.68 per year.
The question becomes, "What per cent. is 64.68 of 1,000?
$1\% = 10$
$64.68 \div 10 = 6.468$, and therefore $64.68 =$ 6.468% of 1,000.
Answer 6.468%

Whether the rate of discount is given in a problem, or whether it is to be found, it is always the difference between the future sum and the present price expressed in the form of a percentage per annum of the future sum. The rate of interest is always this same difference counted as a percentage per annum of the present price or outlay.

When a banker quotes a customer a money rate, as say 4%, it does not make a great difference whether it is a discount or an interest rate, provided the rate itself is a

moderate one and the period of the advance is not unusually long. The existence of the discount rate, as a variant upon the interest rate, is not to be accounted for so much by reason of its giving the money lender a somewhat higher gain as by reason of its superior convenience in calculation. Almost always we find discount rates in use only where they are more convenient than interest rates. A discount rate is virtually always employed in connection with a bill of exchange, and an interest rate is generally employed in connection with a straight loan, and always in connection with deposits which are paid earnings by the banker holding the deposits, that is, of course, in connection with what we call "interest-bearing deposits."

§ **16. The terminology of discount and interest.**—It is proper to explain that several meanings attach to the word "discount." Used as the verb, *to discount*, the word signifies either to purchase or to sell a long bill or note at a present price calculated on the basis of a specified rate of discount. Both the buyer and the seller of the paper are spoken of as "discounting" it. There is a somewhat similar usage in speaking of both landlord and tenant as renting a house. The price received by the person making the sale of the bill or note is sometimes called the "avails" of the discount, meaning the proceeds of the sale of the paper.

One who, having bought a piece of long paper, makes a resale of it, is said to *rediscount* it. Banks to which such resales are often made are called banks of rediscount. Examples are the Bank of England and other central banking institutions in Europe, and the new Federal Reserve Banks of the United States.

Bills and notes which have been purchased by an institution regularly engaged in discounting and which are carried as a part of its assets, are often called its *discounts*. The largest item of resources of a commercial bank is thus

frequently entitled "loans and discounts" or sometimes "discounts" simply. Here the pieces of paper themselves, or at any rate the claims which they represent, are called discounts. A firm whose chief activity is the purchase of long paper is sometimes called a *discount house*. This term is used more in London than elsewhere.

The phrases "bank discount" and "true discount" require mention. The former when it appears is a mere synonym for what we have called simply discount. The latter is a synonym for interest.

The rate of interest actually expressed in those instruments which name a rate, may be called "explicit" interest. The rate of interest really gained in making an investment in long paper, depending on the price paid for the paper (whether or not an express rate is named), may be called "implicit" interest, or better the implicit rate of interest. This is the rate implied in the price paid for a given future sum.[6] The explicit rate of interest is also called the "nominal" rate, and the implicit is called the "effective" or "investment" rate, and also the "yield." Problem number A7 in the preceding section illustrates this distinction. It was a case of a 5% note bought at a price yielding the investor an actual rate of interest of 8%. 5% is a "nominal" rate in the sense that it is the rate in name only, the "real" rate being 8%.

§ 17. **Discount conceived of as interest in advance.**— Bankers often refer to the taking of discount as the "taking of interest in advance." This usage has found its way into the courts (see for example, Black v. The First National Bank, 96 Md. 399). We can best explain the thought here by presenting first the three examples shown below.

[6] The terms "explicit" and "implicit" interest are suggested by Irving Fisher in his book, "The Rate of Interest" p. 6.

Example A

INTEREST PAYABLE IN THE ORDINARY WAY, NAMELY AT THE TIME OF REPAYMENT OF THE LOAN

Loan of $1,000 made on July 1st for 3 months, interest at 6%.
Amount paid over by bank to borrower on July 1.....$1,000
Amount repaid by borrower on October 1..... 1,015
Found as follows:

Principal	1,000
Interest (¼ of 6% of 1,000)	15
	1,015

Here the future sum is $1,015 and its present price, or the present amount exchanged for it, is $1,000.

The difference between the two is $15, which is 1½% of the present price, or 6% of it per annum. That is, this is a case of an interest rate of 6% per annum, as we have defined the interest rate.

Example B

INTEREST PAYABLE IN ADVANCE, OR AT THE BEGINNING OF THE LOAN

Loan of $1,000 made on July 1st for 3 months, "interest in advance" at 6%.
Amount paid by bank to borrower on July 1st.....$ 985
Found as follows:

Amount loaned on July 1st by bank	1,000
3 months' interest at 6% payable in advance or on July 1	15
Net amount paid over to borrower	985

Amount paid back by borrower on October 1..... 1,000
Since the borrower has already paid the $15 of interest, he does not pay it again at the end, but repays merely the principal of the loan, or $1,000.

Here the banker gains $15 for a quarter year's investment of $985 and the true rate of interest figures to 6.09% per annum.

Example C

AN ORDINARY DISCOUNT OPERATION

Suppose a bill for $1,000 payable October 1st, is discounted on July 1st at 6% (discount rate).

Amount paid by bank to the seller of the bill.....$ 985

Found as follows:

Future sum due	1,000
Discount (¼ of 6% of future sum)	15
	985

Amount received back by bank at maturity..... 1,000

Here the bank invests $985 for a quarter year and receives a return of $1,000, yielding a gain of $15.

This is a case of a 6% discount rate, and a true interest rate of 6.09%

The perfect equivalence of operations B and C can be seen at a glance. When in operation B, the banker thinks of himself as lending $1,000 at interest payable in advance, what he really does is to lend $985 for a return of $1,000 in one-fourth year. But if he discounted $1,000 due in one-fourth year, on the basis of a discount rate of 6%, he would make precisely the same outlay for the same return. The conception that discount is interest in advance is sound enough, but it is less simple than the conception explained in this text.

CHAPTER IV

COMMERCIAL BANKING

§ 18. The functions of the commercial bank.—The central figure among the dealers in commercial paper and exchange is the commercial bank. Readers who seek an acquaintanceship with the subject of the foreign exchanges are likely to be familiar with the nature and operations of this institution, but a brief exposition of the rudiments of banking is presented at this point for those who may desire it. It is certainly necessary for the student of the exchanges to understand at least so much as is told here. He ought to understand more.

While "banking" signifies everywhere some form of dealing in money or securities, the exact meaning of the term differs according to time, place, and context. But speaking for the United States and England, and for the present time, a *commercial bank* may be defined as an institution which (1) receives demand deposits and (2) makes short term loans, as a regular activity at an established place of business. It is the *combination* of these two lines of money-dealing that makes commercial banking. It is from this combination that the possibility arises of a bank's lending more money or funds than it itself owns in its own right. This is what gives banking its distinctive character, and the pursuit of either of these lines of business singly does not in the least constitute banking.

All banks, however, engage in a certain number of other operations more or less akin to these two major ones. The most noteworthy among these are (1) buying and selling

exchange, domestic and foreign, (2) buying and selling gold and silver bullion, and foreign coins, (3) receiving specific deposits (*i.e.*—deposits of articles, including moneys if the depositor sees fit, with the understanding that the identical articles are to be returned to the depositor), (4) making collections on notes and drafts for customers, distinguished from the purchase or discount of these instruments, and (5) acting as attorney-in-fact. The issue of bank notes to be used as currency, while an important branch of the business, is not an essential part of commercial banking. In this country banks with national charters issue these notes, and the state banks do not, but both classes are engaged in commercial banking.

§ **19. Deposits and reserve.**—In technical banking usage the word "deposit" does not signify the money, or the credit instrument, handed in to the receiving teller, that is, the thing deposited, but means the *credit* which the customer gets on the bank's books by reason of turning in the money or its equivalent. The deposit is the customer's right to demand payment, or his credit, and it is at the same time the bank's liability to make payment, or its debt.

When receiving funds on deposit, a commercial bank engages with the customer that the amount due him will be paid on demand, but the bank does not engage that it will keep all or any particular proportion of his money actually on hand for the purpose. The bank becomes the customer's debtor, and not a mere agent for holding his money. If a bank owes say $100,000 of demand deposits at a given moment, it may find that by keeping $20,000 of actual money on hand, it will be able in fact to meet all daily demands. The depositors collectively do not, except in cases of "runs," demand all they have a right to. On some days, as a body they bring in more than they withdraw. On other days the reverse is true. The bank knows that by keeping a certain amount of cash on hand it can

hold the fort against the demands that will be made on it. In case withdrawals persistently exceed depositing, the bank will have to arrange to convert some of its assets, other than cash, into cash. Whatever cash the bank does have on hand at any moment for the purpose of meeting its demand liabilities, is known as its *reserve*. A certain amount of reserve is essential for safety. Its quantity may be expressed either in the absolute amount of dollars (pounds, francs, etc.) or in the percentage which this amount bears to the total of demand liabilities protected by the reserve. The latter is of course the more significant figure. Often banks are required to keep a certain minimum percentage of reserve. Where this is the case, the requirement does not flow from a contract with the depositors, but from legislation by the government under whose jurisdiction the bank does business. Such legislation is common.

§ 20. **The loans and their limits.**—The making of short term loans and advances is the second part of the whole which constitutes commercial banking. As indicated on an earlier page, these advances may be made directly to the customer in return for his promissory note, or indirectly by the discount for him of the obligations of others held by him. The commercial bank is to be regarded simply as the greatest of the buyers or discounters of commercial paper. While the deposits of a bank constitute its chief liability, the "loans and discounts" are its chief asset or resource. The beginner, thinking of the bank's lending as an act of passing out cash to the borrower, is inclined to regard the making of a loan as a means of reducing resources. But, of course, in making advances or loans, the institution receives promissory notes or bills of exchange upon which various persons are liable to pay it money at maturity. In the usage of the bank statement, the words "loans and discounts" mean, not the cash

passed out (if *cash* is passed out), but the claim against outside persons which the bank holds in virtue of the possession of these notes and bills. Look through its portfolio of notes and bills and you see the paper evidences of the credits of the bank against outsiders, which constitute the greatest single item among its resources.

The operation of making a loan does not necessarily cause a bank an immediate loss of cash, nor a loss equal to the amount of the loan. The borrower may ask for neither cash nor a draft (or exchange) but may simply have the proceeds of the loan credited to his deposit. In fact, deposits in great part arise out of loans or advances. Since a loan costs interest, a customer is practically certain not to ask for one until he is ready to use it, and therefore may be expected to draw his checks against it at an early moment. But this may or may not cause the bank an immediate loss of cash. The checks may be drawn in favor of other customers of the same bank who simply deposit them without demanding cash. But on the average, an expansion of the loans means a loss of a certain amount of cash. Nevertheless, the bank has constantly far more funds loaned out than it has cash on hand.

The limits beyond which the lending operations of a bank may not be extended are governed at bottom simply by the minimum limit imposed on the bank's reserve, whether imposed by law or by the bank's own prudence. If a bank's circumstances are such that its reserve should not be allowed to fall below twenty per cent. of its deposit liabilities, then the limit of loans is reached when further lending would result in the fall of the reserve below this percentage. *For every loan decreases the percentage of the reserve, whether the loan results in a positive loss of cash or not.* If the loan is made by a direct out-payment of cash, the absolute amount of the reserve is directly reduced by the full amount of the loan. If the loan is made by

giving the borrower a deposit credit, the *percentage* of the reserve is still reduced, because the amount of deposits against which the reserve is carried is increased. Suppose a bank had deposits of $100,000 and a reserve of $20,000. If a loan of $10,000 were made it would necessarily decrease the reserve percentage. If $10,000 cash were paid out the reserve would drop from $20,000 and 20% to $10,000 and 10%. If, on the other hand, a $10,000 credit were granted the borrower, the deposits would ascend to $110,000. The $20,000 reserve would then come to but 18$\frac{2}{11}$% of the deposits. This drop of 1$\frac{9}{11}$% is the slightest fall in the reserve that can result from the loan of $10,000. A decline of this extent will be produced even if the borrower's checking against his account occasions no subsequent withdrawals of cash.

There is then a limit to the amount which a bank may lend, because there is a limit below which it dares not force the percentage of its reserve. The bank's motive to expand its loans rests on the fact that the interest which they yield is the chief element in its earnings. In addition to the restriction on their quantity, there is another important one pertaining to the character of loans, which is that they must be for short periods. It is true, commercial banks buy a certain amount of investment bonds, presumably of a readily marketable type, and this constitutes the making of long-term loans (of a saleable character however), but the far greater portion of their advances must be for short periods and must be properly marshalled or arranged according to the dates of their maturities. Cash reserve normally covers only a minor fraction of the demand liabilities, the greater volume of the cover consisting in these short term loans and advances. It would be dangerous for a bank to make long loans and fixed investments with funds which it might have to return to depositors at any time. To explain what is meant by saying

that the loans should be properly marshalled, suppose a bank has $100,000 of loans outstanding, the latest of which to mature are payable 90 days from the present date. Some of these loans ought to be falling due to-day, some to-morrow, some the next day, and so on. That is, the ideal arrangement for the whole series (special circumstances apart) is to have the maturities flow in continuously and evenly. This operates to give the bank a ready command of cash in case of persistent withdrawals of deposits. In ordinary circumstances it can maintain the body of outstanding loans as a constant by making renewals and new advances (if the market for them is present [1]) equal each day to the amount of loans maturing that day. But if excessive withdrawals take place, the reduction of renewals and new advances will create a cash income to meet or help meet the needs of the case. The chief points to learn in this connection are that the protection or cover which the commercial bank carries against its deposits, consists first, in a partial cash reserve, and second, in a portfolio of short term loans and advances properly marshalled, and after these in other assets.

[1] In the long run the market can be expanded by a sufficient reduction in discount and interest rates, or by the same token, can be maintained.

CHAPTER V

THE RATES OF EXCHANGE

§ 21. The general character of dealings in exchange.— The bill of exchange, taken in its legal sense as including checks and bank drafts, is the virtually exclusive means of international payment employed by ordinary merchants. If a merchant in New York purchases dry-goods from one in London for a stipulated price of £10,000, his full legal obligation is to place in the hands of the Englishman £10,000 of British legal tender. But in virtue of the system of the foreign exchanges, the New York merchant is in practice enabled to settle his account with economy and ease, merely by obtaining a bill of exchange. If it were not for this system, he would be forced to ship gold to London for conversion into British coin to satisfy his legal tender obligations there. But in fact the shipment of gold by mere merchants is wholly avoided. It is true, some gold has to be shipped between countries from time to time, but the amount of such shipments is by the use of exchange reduced to a minimum. And when made, the shipments are engineered by bankers only, and ordinary merchants do not have to think about them.

We do not mean to imply that the economy in the use of specie, which is effected by means of credit instruments, is confined to foreign commerce. Checks and drafts perform the same function in internal as in foreign trade. If it were not for the system of domestic exchange, a San Francisco merchant indebted to one in Chicago would be compelled to ship money (although not necessarily gold)

from San Francisco to Chicago. In their very fundamentals, the principles of foreign and of domestic exchange are the same. Nevertheless in many respects the two systems of exchange are dissimilar. The single fact that different countries have different kinds of money, makes foreign exchange a distinct subject in practical detail. One consequence of this is that the economy in the use of specie effected in foreign trade is not only more striking to the imagination but is actually more important than in domestic exchange. When the coin of one gold-standard country is shipped to another, it has to be melted down and recoined if it is to become money of that other country.[1] In addition to this, such coin when melted into bullion will frequently require to be restandardized before being recoined. This will always be the case when gold $\frac{9}{10}$ fine is shipped to a country having gold $\frac{11}{12}$ fine, and vice versa. There is more business and expense associated with an international than with a domestic shipment of money.

Foreign exchange in any given country consists in bills and telegraphic orders to pay money that are dischargeable in some other country. Hereafter, unless the contrary is indicated, we may be understood as meaning foreign exchange when we speak simply of exchange. The buyers and sellers of exchange include merchants engaged in foreign trade and dealers in bonds and stocks for foreign account, governments and corporations that owe money abroad or are owed it from abroad, travelers, immigrants, miscellaneous persons, and the bankers. Among all these there are discernible two broad groups, namely (1) those

[1] Sometimes, however, coin of one country shipped to another will be held in its existing form, though valued only as bullion, against the possible turn of the tide of gold movement when it may be shipped back to the first country to be available there without the expense of recoinage. And again specie export often takes place without involving the melting of coin, because uncoined bullion is found for shipment.

who deal in exchange as a business in itself, that is, bankers, "exchange houses," and sometimes bill brokers, and (2) those who deal in exchange as an *incident* to some other major transaction, operation, or undertaking, such as an export or import of goods or securities, a flotation or discharge of a foreign loan or the payment of interest upon it, a tour, and so forth. Traders—by this we mean traders in merchandise and securities—are of course by far the most important element in the second group. The *transactions* in the exchange market fall into two main classes, (1) those taking place between the traders and the bankers (with the intermediation of bill brokers at times) and (2) those taking place between banker and banker. No important dealings in exchange are carried on directly between merchant and merchant without the intervention of the banker as a middleman. For the present we shall pass over with mere mention the extensive traffic in drafts and telegraphic transfers which the banks conduct among themselves, but it would seem wise to give some general indications of the character of the dealings which originate with the traders, before we enter upon the chief subject of this chapter, the quotation of rates.

International business transactions in merchandise and securities make necessary certain exchange operations as a means of settlement. The main relations of these transactions to the exchange market may be stated in brief as follows:

An export from a country either increases the supply of exchange for sale in that country, or it does not directly affect the market for exchange in the country.

An import into a country either increases the demand for exchange in that country, or it does not directly affect its market for exchange.

One country's export is the other country's import. The importer becomes a commercial debtor, the exporter a com-

mercial creditor. The kind of money that is due from the one to the other, depends on the manner of quoting the price of the article exported. It will be foreign money if the price was stated in foreign money, and home money if it was quoted in the latter medium. In either case the exporter will manage through some operation in exchange to make *final* payment take the form of his home currency. The exchange operation to be utilized in a settlement and the method of quoting prices exercise much influence upon each other. To be brief though explicit, there are three chief modes of settlement by means of exchange. These are

(1) The exporter draws on the importer's country.[2]
(2) The importer remits [3] to the exporter's country.
(3) The exporter draws on some third country and the importer (or a bank acting for him) also remits to that third country.

For purposes of illustration let us suppose a shipment of flour from New York by way of one of the French ports to Paris. In the case of the first two methods we may assume the price of the consignment to be 50,000 francs. (1) With plan number one in operation, the New York exporter draws a draft for 50,000 francs, the drawee being either (a) the French importer or (b) some French bank which the latter has induced to serve as drawee. (The reasons for securing a bank to serve as drawee will be brought to light in a later chapter.) The exporter then sells this draft in New York for as many dollars as it will fetch at the current rate of exchange.[4] These dollars

[2] To draw on a country means, of course, to draw on some person,

[3] To remit signifies here to send exchange to some person or firm, or bank in that country.

[4] In practice an exporter's draft will nearly always be a long or time bill "with documents attached" (*see* especially Chapter VI). If it is an authorized draft on a bank it will be readily saleable

are his compensation in its final form for the flour he has shipped. The francs surrendered by the Frenchman when he honors the draft (or when he reimburses the bank for paying it in case the latter was drawee) are what he on his side gives up to get the flour. Between the exporter as drawer and seller of the draft and the importer as the party to bear the ultimate expense of discharging it, there stands a series of banks that handle the instrument. (2) Under the second plan, the Frenchman expends the 50,000 francs payable by him, for a draft on New York, purchasing as many dollars of this exchange as can be had at the current rates, and remits the same to the exporter. Here as before, the Frenchman gives up francs, the American receives dollars, and the flour is paid for. Here as before, a chain of banks intervenes in the process of settlement. (3) In our illustration of the third method we shall assume the price of the consignment of flour to be quoted in American money, and to be, say, $9,650. Here we shall suppose the French merchant arranges for a "sterling credit" in favor of the New York exporter. This will involve the grant by some English bank of a permission to the American to draw a bill or bills upon it against shipment of flour to the Frenchman. This permission will be secured by the Frenchman, usually through the intermediation of a French banking establishment. (§ 37 to § 47 of this book are given over to the explanation of this scheme of settlement.) To make a long story short, this plan means that at the time of shipment the American exporter draws a draft on an English bank for a sufficient number of pounds sterling to sell at the current rates of exchange

in New York. If when drawn on the importer personally, as under method number one, it could not be *sold* in New York, it would be given to a New York bank for collection. The process of collection will ultimately bring the exporter a return in dollars, and of course cost the Frenchman francs.

for the 9,650 dollars due him. The English bank pays this draft (which under standard arrangements will be drawn at sixty or ninety days sight), but the French merchant—or more precisely his bank acting in his behalf and taking reimbursement from him—furnishes the pounds required to discharge the instrument by buying London exchange in Paris and sending it over to the English bank. This is a case where the exporter draws on a third country, and the importer, or a bank acting in his behalf, remits to that third country. All cases conform to the rule already given, that the exporter either draws and sells exchange or does not engage in an exchange transaction in his country (the latter being the case under plan two), while the importer either buys and remits exchange or does not enter the exchange market of his country (the latter being the case under plan one).

To summarize: *If we look at a single merchandise movement, such as the shipment of flour from the United States to France, we see that it may function (as our export) to produce in our market a supply of exchange on France, or it may function (as a French import) to produce in France a demand for exchange on the United States; but it cannot produce both of these effects at once. It can, however, add to the supply of exchange in America and to the demand for exchange in France, conjointly, where the exchange is in both cases on a third country. If we view the entire commerce of a given country, exports and imports, we see that the exports give rise to a supply of exchange or else have no direct effect upon its exchange market, while the imports create a demand for exchange or else have no direct*[5] *effect.*

There are a number of variants upon the three chief

[5] Indirect effects may be produced, in a very deep and round-about way, through arbitrage of exchange, a subject discussed in Chapter XIV.

methods of settlement upon which we have touched. There is much to be said concerning the practical grounds of choice among these methods, which cannot be developed at this point because somewhat advanced questions of personal and documentary security and even questions of arbitrage are involved. But taking the commerce of the world at large, it is safe to say it is commoner for exporters to draw than to receive remittances of exchange. Particularly in the commerce of the United States with England, it is the predominant practice for our exporters to draw rather than for English importers to remit, and it seems also commoner in this case for our importers to remit rather than to be drawn upon by their English creditors. These customs have the effect of concentrating the exchange dealings that arise out of the commerce between the two countries, on the American side or in our market. In other words we traffic a great deal in exchange on England while the English deal in exchange on us in much less volume. This condition is rather characteristic of England's commerce with all countries.[6] It would be theoretically possible for the commerce between England and the United States to be settled wholly by means of exchange dealings on our side and by supplementary gold shipments, in both directions according to the requirements of the conditions, engineered wholly from our side on the basis of our exchange rates.

It will be profitable to consider further the manner of utilizing the bill as a means of international payment. We shall give next a simplified illustration of its employment, which will be artificial when compared with actual practice in that for the moment it leaves out of consideration the banker as exchange middleman. When we modify the illus-

[6] This is what Mr. George Clare has reference to when he states that "England draws few bills but accepts many," (*see* his "A B C of the Foreign Exchanges," edition of 1911, p. 11).

tration so as to repair this defect, we can show most easily the way in which the banker intervenes and the essential nature of his operations as a mere middleman. This will still leave for the future, an explanation of his services in "financing" commerce, that is, his services in making advances to merchants in connection with their foreign shipments.

Let us suppose that two equal and opposed commercial transactions take place between the United States and England, namely (1) an export of our flour sold in England for £10,000 and (2) an import of their dry goods also sold our merchant for £10,000. It would be possible for one bill of exchange to be used in making a complete settlement of both of these transactions. For the sake of simplicity we assume at present that the bill will be drawn payable at sight. Settlement could be accomplished as follows:

The American exporter draws a bill on his English importer.
He sells this bill to the American importer.
The latter in turn remits it to his creditor, the English exporter.
This person collects payment on the bill from the drawee or English importer.

The following scheme shows the plan of settlement in greater detail:

The American Flour Export Company

(1) Ships £10,000 worth of flour to the British Flour Import Company.
(2) Draws a sight bill on the latter for £10,000.
(3) Finds as a purchaser for this bill, the American Dry Goods Import Company, which buys it at a price say of $4.85 per pound sterling, paying a total of $48,500 for it.

The American Flour Export Company has now received $48,500 for its flour and is practically out of the settlement except for the possibility of recourse upon it as drawer in case of dishonor of the bill.[7]

The American Dry Goods Import Company

(1) Receives a shipment of dry goods from the British Dry Goods Export Company, the price of which is stipulated at £10,000 in English money, and therefore owes the British company this sum of sterling money.
(2) Buys the above mentioned bill of exchange for $48,500.
(3) Indorses this bill to the British Dry Goods Export Company and remits it to this company.

The American Dry Goods Import Company is now practically out of the settlement except for the possibilities of recourse.

The British Dry Goods Export Company

(1) Ships the consignment of dry goods already mentioned.
(2) Is therefore creditor of the American Dry Goods Import Company for £10,000.
(3) Receives the above mentioned bill of exchange from the latter.
(4) Takes the bill to the English drawee, namely the British Flour Import Company, and collects from it £10,000 in payment.

The British Dry Goods Export Company is now out of the settlement.

The British Flour Import Company

(1) Receives the shipment of flour already mentioned.
(2) Becomes a debtor, therefore, to the American Flour Export Company for the price of £10,000.
(3) Discharges the debt by paying the bill of exchange for this sum drawn by the latter.

To be emphatic, we repeat that this illustration is artificial in two respects. In the first place, an exchange middleman, the banker, will nearly always be involved in practical life,

[7] Compare § 12.

and therefore, as we shall see, a single bill will not accomplish the settlement. In the second place, exporting merchants will almost always draw long instead of sight bills, and this as a means of shifting the burden of financing the shipment to the shoulders of the bankers or money lenders.

But taking the proceedings as given, when they are completed both commercial transactions are settled. Both exporters have been paid for their goods, each in his home money; and both importers have made payment, each in his home money. No money has passed between the two countries, but a sum of local money changed hands in each country. In America $48,500 was transferred, this sum depending on the rate or price of exchange, and £10,000 was transferred in England. These same results will also be secured as the modified settlement is worked out in real life.

We now introduce the banker as exchange middleman, while retaining the assumption that a sight bill is drawn by the exporter. Our exporters who have exchange to sell dispose of it to the banks, and such of our importers as need to procure exchange obtain it from the banks. This system is much more convenient and is also superior from the standpoint of credit relations, and is a necessary incident to the enjoyment of the aid of the banks in financing exports and imports. The banker does not sell to the importers the same bills that he buys from the exporters! He is not like the produce middleman who perforce sells the same potatoes that he buys. The banker sells to importers new sight bills or checks which he himself draws. The system is simple. The banker sends his purchased exchange abroad to his correspondent bank,[8] with which he has a deposit or "balance," and has this institution collect payment and place the proceeds to the

[8] Or perhaps to a branch of his own establishment which he has abroad, or to a parent institution of which his bank is a branch.

credit of his deposit. In England such a deposit will, of course, be in pounds sterling. When the banker comes to sell exchange, he draws his checks on this deposit. His purchases of exchange build up his foreign balance and his sales of exchange tear it down again. He makes the two balance or cancel one another in the long run, and makes his profits out of a difference between his buying and selling rates. In brief (1) our banker buys the bills drawn by our exporters, (2) remits them for the credit of his foreign balance, and (3) sells his checks against this balance to our importers. (It is checks he sells to importers in real life, and not his long bills.) If the exchange drawn by the exporter is a long bill, as it is usually, the banker sends it abroad just the same. He receives an immediate credit from it for his balance (in a reduced present sum of foreign money) if he has it discounted abroad, and a deferred credit if he "invests" in it.[9]

The proceedings in the illustration with which we have been recently dealing on the assumption that no banker intervened, would be modified by his entry to become the following:

The American Flour Export Company draws a sight draft for £10,000 on the British Flour Import Company.

It sells this draft to the American banker for say $48,500.

The banker remits this bill to his London correspondent for credit.

The latter collects from the drawee and credits the remitting banker's balance with £10,000.

The American banker sells his check for £10,000 drawn on this correspondent, to the American Dry Goods Import Company for perhaps $48,510.

This company remits the check to its English creditor, the British Dry Goods Export Company, which collects on it from the English correspondent bank on which it is drawn.

[9] Compare Chapter XI on investment in long bills.

The result is, both exporters have been paid and both importers have made payment, each man in his local money.[10]

§ 22. **The methods of quoting a rate of exchange.**—Exchange rates are in practice quoted according to three methods. If we were compelled to give names we might call them:

(1) The premium and discount method
(2) The direct price method
(3) The indirect price method.

Any rate of exchange gives us what is essentially a price, namely the price in local money of a unit of money payable on order at another place, but the rate does not necessarily assume the form of an ordinary price quotation. It is for this reason, no doubt, that it is usual to speak rather of the *rate* than the *price* of exchange.

Rates of domestic exchange are quoted in the premium and discount fashion. This holds good of the United States, and probably of all countries. Thus at some moment we might find the quotation for New York exchange as "10¢ discount" in Chicago and "35¢ premium" in San Francisco, signifying the discount and premium per $1,000 face value of sight draft on New York. As a price the Chicago rate would read $999.90, and the San Francisco rate would read $1000.35, for $1,000 of draft. Speaking of the practice of the world at large, *foreign* exchange is not usually quoted according to the premium and discount method. However, a country may readily adopt this method in the case of exchange on another having the same monetary unit, as Switzerland on France, or England on South Africa. In some Central American coun-

[10] The services and compensation of correspondent banks are considered in Chapter VIII, § 53.

tries the quotations of exchange on foreign places having entirely different monetary units also take on the form of a percentage of premium.

Under what we have ventured to call the direct price method, the quotation states the number of home money-units payable for 1, or 10, or perhaps 100 foreign units. Taking pre-war figures, sight sterling is quoted perhaps in Berlin at 20.40, in Paris at 25.20, in New York at 4.85, the figures signifying marks, francs, and dollars respectively per pound sterling. Petrograd formerly quoted sterling at the number of roubles per 10 pounds.

The indirect price method is to state the number of foreign units that may be purchased or sold for one home unit. This method is common only where the country adopting it has a larger (or more valuable) money unit than the country on which the exchange so quoted is drawn. London rates on foreign money capitals are practically all stated after this fashion. New York rates on Paris are also so quoted. If New York quoted sterling in this manner, in place of a rate of 4.85 we would find the figure of 49½ (approximately) signifying 49½ English pence of exchange purchasable for a dollar. To refer to an illustration given by the Dutch economist, Pierson, we commonly quote sugar at so many cents, say 6, per pound, but we could quote sugar instead at 16⅔ pounds per dollar. And when sugar falls from 6¢ to 5¢ per pound we could also say that it has fallen from 16⅔ pounds to 20 pounds for a dollar. Thus London quotes its bills on Berlin and Paris and other continental centers in the manner analogous to the quoting of sugar at 20 pounds per dollar instead of at 5¢ per pound. And when exchange on Berlin or Paris becomes *cheaper* in London, the figure expressing the rate goes *higher* and vice versa.

§ 23. **Specimen market reports.**—Beneath are given examples of exchange-market reports. The first is from the

Wall Street Journal, a daily of New York City, and shows rates as on an ordinary day prior to the outbreak of the great war.

FOREIGN EXCHANGE

The foreign exchange market opened steady with demand sterling at 4.8715 @ 4.8720, unchanged from Thursday's close.

The market was quiet throughout the day. What bills were offered were quietly absorbed by the short interest, keeping rates steady.

At the close, demand sterling was 4.8720 @ 4.8725, up 5 points on the day from the opening.

		Cables	Demand	Sixty Days	Ninety Days
Sterling	open	4.8765 @ 4.8770	4.8715 @ 4.8720	4.83 @ 4.8305	4.8160 @ 4.8165
do	closed	4.8770 @ 4.8775	4.8720 @ 4.8725	4.83 @ 4.8305	4.8160 @ 4.8165
Francs	open	5.17¼ plus 1/16	5.17½	5.19⅞ less 1/64	
do	closed	5.17¼ plus 1/16	5.17½	5.19⅞ less 1/64	
Marks	open	95⅜ less 1/32	95 3/16 less 1/64	94⅞ less 1/32	
do	closed	95⅜ less 1/64	95 3/16	94⅞ less 1/64	
Guilders	open		40⅛		
do	closed		40⅛		

Paris exchange on London 25 fr. 21¾ c., off ¼ c.
Berlin exchange on London 20m. 47 pf., unchanged.
Rio exchange on London was 1/32d. lower and quoted at 15 9/32d. against 15 17/32d. last year, and 15¼ d. two years ago.
London.
Call money up to 5½%, closing at 4¾ to 5.
Contingent bought bills at 4½%.
Prevailing rate at close was 4⅝%.

The next report, differing somewhat in form, is from the weekly, *Commercial and Financial Chronicle* (New York). The table shows the range of rates for a week, also as under ante-bellum conditions.

FOREIGN EXCHANGE.—Discounts in London were well maintained during the week, yet sterling here closed lower than it was quoted a week ago.

To-day's (Friday's) nominal rates for sterling exchange were 4.84 for sixty days and 4.88 for sight. To-day's actual rates for sterling exchange were 4.8320 @ 4.8330 for long, 4.8720 @ 4.8725 for short and 4.8770 @ 4.8775 for cables. Commercial on banks 4.8280 @ 4.8290 and documents for payment 4.82 @ 4.82⅜.

Cotton for payment 4.83 @ 4.83¼ and grain for payment 4.83¼ @ 4.83½.

To-day's (Friday's) actual rates for Paris bankers' francs were 5.20a @ 5.20 for long and 5.17½d. @ 5.17½ for short. Germany bankers' marks were 94 7/16 @ 94 9/16 for long and 95 3/16 @ 95¼d. for short. Amsterdam bankers' guilders 40.12 @ 40.14 for short.

Exchange at Paris on London, 25f. 22½c.; week's range, 25f. 22½c. high and 25f. 21½c. low.

The week's range for exchange rates follows:

	Long [11]	Short [12]	Cables
Sterling Actual: [13]			
High	4.8365 @ 4.8375	4.8765 @ 4.8775	4.88 @ 4.8815
Low	4.83 @ 4.8310	4.8695 @ 4.8705	4.8750 @ 4.8760
Paris Bankers' Francs:			
High	5.19 3/8h @ 5.19 3/8a	5.16 7/8d @ 5.16 7/8	5.16¼d @ 5.16¼
Low	5.20a @ 5.20d	5.17½d @ 5.17½	5.16 7/8d @ 5.16 7/8
Germany Bankers' Marks:			
High	94 7/16x @ 94	95¼d @ 95¼	95 5/16 @ 95 3/8d
Low	94 3/8 @ 94 7/16d	95 3/16d @ 95 5/16	95¼x @ 95 5/16
Amsterdam Bankers' Guilders:			
High		40.19 @ 40.20	40.24 @ 40.25
Low		40.13¾ @ 40.15	40.18 @ 40.19
Less	a 1/16 of 1%	d 1/32 of 1%	h 3/32 of 1%
Plus	k 1/16 of 1%	x 1/32 of 1%	y 3/32 of 1%

The following were the rates for domestic exchange on New York at the undermentioned cities to-day: Chicago 5c per $1,000 discount, Boston par. San Francisco 70c per $1,000 premium. Savannah, buying $1.50 per $1,000 discount, selling par. Montreal 31¼c per $1,000 discount.

The following table from the New York *Times'* "Annalist" for November 20th, 1916, shows war-time rates in New York. Quotations on a larger number of countries are now published in our metropolis than before the war.

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[11] Long means here *drawn at sixty days sight.*

[12] Short means here *sight* or *demand drafts*, or *checks.*

[13] "Actual" rates are opposed to "posted" rates. *See* page 82 below.

FOREIGN EXCHANGE

The range for the principal exchanges during the week were as follows:

	Par.	Range Week Ended Nov. 18. High.	Low.	Close.	Per Ct. Disc. (—) or premium (+)
Sterling	4.8665	4.75 11/16	4.75 5/8	4.75 11/16	— 2.2
Francs	5.1826	5.84 1/2	5.84 5/8	5.84 1/2	— 12.8
Marks	95.28	69.68 3/4	69.37 1/2	69.37 1/2	— 27.1
Kronen	20.26	11.86	11.86	11.86	— 41.4
Guilders	40.19	40.87 1/2	40.75	40.87 1/2	+ 1.7
Lire	5.1826	6.67 1/4	6.71 1/4	6.71 1/4	— 29.5
Rubles	51.45	30.45	29.60	30.45	— 40.8
Swiss francs	5.1826	5.20	5.23 1/4	5.20	— 0.3
Pesetas	19.20	20.35	20.35	20.35	+ 0.5
Milreis (Rio)	32.46	23.96	23.53	23.55	— 27.1
Pesos (Buen. Aires)	42.44	43.29	43.25	43.25	+ 2.0

The last column showing premiums and discounts (or percentage deviations of the rates from "par") is introduced because of the extraordinary dislocations of the exchanges occasioned by the European conflict. The "par," or more fully, the "mint par," is a figure showing the amount of gold money of one country that has the same quantity of pure or fine metal in it as the gold unit of some other given country, the units of both countries being taken as defined by law (compare § 106). Thus the first item signifies that 4.8665 dollars of gold coin of the United States contain the same quantity of fine gold (113.0015 grains troy) as the British sovereign, or one-pound coin. When stated as equations, the pars listed in the foregoing table become the following. The equality asserted is simply one of fine gold contents as defined by law.

U. S. dollars	4.8665	= 1 sovereign, or one-pound coin of England.
French francs	5.1826	= 1 U. S. dollar.
U. S. dollars	95.28	= 400 marks of Germany.
U. S. dollars	20.26	= 100 kronen of Austria.
U. S. dollars	40.19	= 100 guilders of Holland.
Italian lire	5.1826	= 1 U. S. dollar.

U. S. dollars	51.45	= 100 rubles of Russia.
Swiss francs	5.1826	= 1 U. S. dollar.
U. S. dollars	19.20	= 100 pesetas of Spain.

The last two items, for Brazil and Argentina, are omitted because, although given by the reporter, they are hardly significant mint pars.

§ 24. **Comment and explanations.**—The tables of rates suggest the existence of a single and unified market for exchange, such as is found for securities and staple commodities in the stock and produce exchanges (*i.e.*, exchange-buildings). Foreign exchange is not, however, bought and sold at any single meeting place. Dealings in it nevertheless unite in a virtually single market. The test of such a market is presumably the existence of a single price for a given grade or kind of article at any moment of time. In periods of unusual activity, the great securities and produce markets split apart a little according to this test, but they tend to coalesce and usually are single. At any instant the prices for a given kind of exchange in different parts of a money capital like New York will be so close together that there is a practically unified market. Primarily on account of the telephone, buyers and sellers of bills are in about as intimate contact and competition as if they stood in a group upon a single floor. The activities of a special class of exchange brokers, who move about among dealers that have fixed places of business, also contributes to the unification of the market. These brokers make it a practice at intervals during the day to leave slips with the larger dealers, which give the momentarily prevailing rates as they ascertain them in their comings and goings.

Because rates are so nearly uniform with the different dealers, newspapers gather the data for their market reports from any one of the leading exchange houses or from

some exchange broker. Examination shows that different papers give slightly different quotations for the same classes of exchange on the same days. The reader will observe that in our specimen reports many rates are given as a couple connected by the sign "@." Thus demand sterling opened at "4.8715 @ 4.8720." This signifies bid 4.8715 and asked 4.8720. Sales may fail to take place for some time after the opening. But when they do occur, after mail has been opened and news considered, they are nearly certain to take place at either the bid or the asked figure, and the reporter has become accustomed to give these as the record of the market's opening. The closing is often registered in a similar pair of figures. We should note that 4.8715 and 4.8720 are but 1/20 of 1¢ per £ apart. Thus the gap between them is only about 1/100 of 1% of either one of these figures (.0005 is a little over 1/100 of 1% of 4.8715).

A few of the expressions appearing in the market reports given in the preceding section, call for comment. The second report opens with the statement that *discounts in London* "were well maintained during the week, yet sterling here closed lower than it was quoted a week ago." This means that the various discount rates for different sorts of commercial and banking paper, ruling in the London money market sustained themselves during the week at the relatively high levels at which they started. These several rates are intimately related and move closely together as a group. The height of these rates, or as we often say, the height of the London discount rate, helps determine what the position of the New York rates of exchange on London shall be. This is true not only of the rates for long sterling, but also of the sight and cable rates. A high discount rate in London tends to make New York's sight and cable rates on London keep high. Hence the decline of sight sterling during the week covered by the report, being to a degree contrary to expectation, is a cause for com-

ment by the foreign exchange writer. The rate for sight sterling declined in spite of the tendency of the "well maintained" London discount rate to hold it up.

Referring to the report first reproduced, it may be said the terms *steady, firm, quiet,* and the like, characterize the general tendency shown by rates and have the same self-evident meanings here as in other types of market report. *Up* or *off* so many *points* compare the rates of this day or week with those of the last preceding day or week, or the closing rates with the opening rates of the same day. What is meant by a "point" can be told only by context. A point in New York sterling rates now generally signifies $\frac{1}{100}$ of 1¢, so that an ascent from 4.8610 to 4.8620 would be called a "10 point" rise.

When the term *check* or *cheque* is used in connection with foreign exchange, it is simply a synonym for a banker's sight draft on another banker. *Continentals* is a general term covering bills of exchange drawn on other countries of Europe than the British Isles. The chief continentals have been, for us, bills on France, Germany, and Holland.

The short interest absorbs bills (first report) is a statement indicating the fact that speculation takes place in foreign exchange. Since the rates fluctuate with the passage of time, and since these fluctuations are governed by factors which can be forecasted in part by those who study them, there is nearly always some systematic speculation going on in exchange.[14] A speculator's profit is made out of a future rise in the rates by going "long" of exchange, out of a future fall by going "short." There are various ways in which the operator can put himself long or short of the market. When he is short he will need some time to buy in exchange "to cover." That is, he will need to buy in an amount of exchange to meet his commitments.

[14] Chapter XIII deals with speculation in exchange.

He hopes to buy it in cheap enough to reap a profit. On the occasion which the reporter had under review, he believed he had detected the fact that dealers then short were quietly buying in bills to cover. Whether they cover at a profit or loss in this particular instance, does not appear. The fact that they are covering quietly would indicate at least that the shorts are not facing any great losses and are not in a panic.

Exchange on London in Paris and Berlin, or "Paris and Berlin sterling" is frequently quoted in the New York reports. This news is included because of its bearing upon the probable future course of sterling in New York itself. The rates for sterling exchange in Paris and Berlin have quite a close connection with the rate for sterling in New York. For instance, a rise of sterling in Paris tends to produce a rise in New York. This is because of the existence of the line of operations known as arbitrage in exchange.[15]

Rio exchange on London quoted at 15⅝₂, is sterling exchange in Rio Janeiro, Brazil, quoted in the "indirect" manner, as the number of British pence allowed for one Brazilian (inconvertible paper) unit, or "milreis." This rate is of interest to Americans who have either to make payments to or receive them from Rio. Remittances between Rio Janeiro and New York in either direction were before the war very likely to be made either directly in sterling exchange, or else in ways which indirectly involved sterling.

We have given no example of the more lengthy foreign exchange reviews which appear from time to time in the daily and weekly financial papers. These reviews are characterized by a remarkable breadth of view over commercial and political conditions. Great events which influence the

[15] *See* Chapter XIV.

chances of war, or which touch the finances of nations, and movements in the stock markets of the different countries, as well as the immediate course of commerce in merchandise, all are subject to the scrutiny and analysis of the foreign exchange writer, because any or all of these things may profoundly affect the course of exchange. War will, for instance, produce perturbations in the international movement of securities and merchandise and cause significant alterations in national currency conditions, and will therefore create important disturbances in exchange supply and demand and rates.

Posted or *nominal* rates are those asked by bankers for checks and letters of credit sold in small lots. "Actual" rates are those at which purchases and sales take place between bankers and dealers themselves, or at which the larger purchases of merchants from bankers take place. (But a "nominal" rate sometimes means one quoted for a market so very inactive as to be practically one in name only.) The rates given in our specimen reports are actual unless otherwise indicated. Posted rates range, in the case of sterling, from ½ cent to 1½ cent per pound higher than actual rates, and fluctuate much less. The following is an example of a table of posted rates, taken from the *Commercial and Financial Chronicle.*

POSTED RATES

The following shows daily posted rates for sterling exchange by some of the leading drawers:

		Friday Nov. 26	Monday Nov. 29	Tuesday Nov. 30	Wednesday Dec. 1	Thursday Dec. 2	Friday Dec. 3
Brown Bros. & Co.	60 days	4.84½	4.84½	4.84½	4.84½	4.84½	4.84½
	sight	4.88½	4.88½	4.88½	4.88½	4.88½	4.88½
Kidder Peabody & Co.	60 days	4.84½	4.84½	4.84½	4.84½	4.84½	4.84½
	sight	4.88	4.88½	4.88½	4.88½	4.88½	4.88½
Bank British North America	60 days	4.84½	4.84½	4.84½	4.84½	4.84½	4.84½
	sight	4.88½	4.88½	4.88½	4.88½	4.88½	4.88½

		Friday Nov. 26	Monday Nov. 29	Tues. day Nov. 30	Wednes- day Dec. 1	Thurs- day Dec. 2	Friday Dec. 3
Bank of Montreal	60 days	4.84½	4.84½	4.84½	4.84½	4.84½	4.84½
	sight	4.88	4.88	4.88	4.88	4.88	4.88
Canadian Bank of Commerce	60 days	4.84	4.84½	4.84½	4.84½	4.84½	4.84½
	sight	4.88½	4.88½	4.88½	4.88½	4.88½	4.88½
Heidelbach Ickelheimer & Co.	60 days	4.84	4.84½	4.84½	4.84½	4.84½	4.84½
	sight	4.88½	4.88½	4.88½	4.88½	4.88½	4.88½
Lazard Frères	60 days	4.84½	4.84	4.84	4.84	4.84	4 84
	sight	4.88	4.88	4.88	4.88	4.88	4.88
Merchants' Bank of Canada	60 days	4.85	4.84½	4.84½	4.84½	4.84½	4.84½
	sight	4.88	4.88	4.88	4.88	4.88	4.88

The table just beneath is copied from a card issued by a certain bank of Chicago, under normal or pre-war conditions.

FOREIGN DEPARTMENT

Rates for drafts until further notice:

	Checks Under $100	Checks for $100 to $10,000
Pounds £ on England	$4.8725	$4.87
Pounds £ on Scotland and Ireland	4.875	4.8725
Pounds £ on Greece	4.875	4.8725
Pounds £ on Australasia	4.875	4.8725
Pounds £ on Turkey and Egypt	4.885	4.88
Pounds £ on South Africa	4.90	4.8875
Francs on France	.1935	.1932
Francs on Belgium	.1925	.1922
Francs on Switzerland	.1935	.1932
Francs on Turkey and Egypt	.1945	.1940
Marks on Germany	.2380	.2377
Guilders on Holland	.4035	.4032
Kronen on Austria	.2028	.2025
Lire on Italy (checks)	.1925	.1922
Lire on Italy (post remit.)	.1930	.1925
Kroner on Scandinavia	.2683	.2680
Pesetas on Spain	.1825	.1820
Finmark on Finland	.1950	.1940
Roubles on Russia (checks)	.5155	.5150

Roubles on Russia (post remit)	.5225	.52
Yen on Japan	.5010	.50
$ local currency on Hong Kong	.4650	.4640
Pesos on Philippine Islands	.50	.4995
U. S. Dollars on Hawaii		1/10% prem.
U. S. Dollars on Cuba		3/16% prem.
U. S. Dollars on Porto Rico		1/2% prem.
U. S. Dollars on Panama		1/2% prem.

We will make special rates on drafts costing $10,000 or more.

A glance at the table on page 82 shows that the posted rates of leading New York houses are for the most part the same, though some houses may give quotations varying by as much as ½¢ from those of the majority. No such differences can exist between the actual rates at which different houses are doing business. In the table immediately above the rates for drafts payable in American dollars in Hawaii, Cuba, Porto Rico, or Panama, are quoted according to the ordinary method followed in domestic exchange, except that the premium is expressed in fractions of 1% instead of in cents per $1,000. A draft for $1,000 on Cuba would at the rate quoted, cost $1,000, plus 3/16 of 1% of $1,000 (or $1.87). All the other rates are expressed simply as the amount of American money charged for one unit of foreign money. It will be observed that the drafts offered for sale on certain of the countries on the list, are not drawn in terms of the national moneys of those countries. Thus drafts on Greece are in pounds sterling, and drafts on Turkey are offered both in pounds sterling and in francs.

§ **25. The classes of exchange quoted.**—A classification of exchange may be founded upon any one of three bases, (1) *length of life,* or the time to elapse until payment is due, (2) *domicile,* or the place where the exchange is payable, and (3) *security.* Distinguished according to length of life, the more common classes are (a) telegraphic trans-

fers or "cables," (b) sight or demand bills, (c) sixty days' sight bills, and (d) ninety days' sight bills. By a sixty days' sight bill is meant, of course, one payable sixty days after the date of sight by drawee or date of acceptance. Less common types are drafts payable at 3, 7, 10, and 30 days, and four and six months after sight, and drafts payable at various designated periods after *date* instead of after sight. Telegraphic transfers will be discussed in § 26. If the law of the place where time bills are payable, allows days of grace, these days must be added to the period specified in the bill, to ascertain the legally effective date of maturity. Days of grace may be waived and a bill may be so written as to deny them, but commonly nothing is said about them and therefore they are counted.

Classification according to domicile is too simple a matter to call for extended comment. Distinguished according to domicile, we have in our market English, French, German, Italian, and Spanish exchange, and so forth. Sometimes exchange drawn on a given country is called by the name of the money unit of that country. Thus when a person means that exchange on Germany has become cheaper, he may say that "marks have fallen."

The third basis of classification is security. In this connection we mean by the term *security* that which assures or helps assure the holder of commercial paper or of promissory obligations in general, that he will be able to collect what is due him. In this sense, security falls into two classes, (1) personal and (2) collateral security. Personal security is the liability to pay of any person [16] who is bound. The obligor's liability is the holder's security. Collateral

[16] A "natural" person is an ordinary individual and a "legal" or "artificial" person is a corporation, private or public. Personal security includes the liability to pay of both natural and artificial persons. A corporation as such may bind itself to make payment of moneys and this is legally quite a distinct thing from all the individuals composing the association (known as the corporation)

security consists in articles of value (often promissory obligations such as bonds, notes, or acceptances, or again corporation shares, or warehouse receipts and bills of lading which entitle the holder to receive designated lots of merchandise) which are pledged to the holder of an obligation or are otherwise legally placed at his disposal so as to enable him to realize upon their value in case the persons bound on the obligation fail to make payment or payments when due. This security is "collateral" in the sense that it exists *along side of* and in addition to the primary personal security.

There are three main classes of exchange distinguished according to personal security. These are

(1) Bankers' drafts on bankers, including telegraphic transfers.[17]
(2) Merchants' drafts on bankers.
(3) Merchants' drafts on merchants.

The possible class of bankers' drafts on merchants does not figure in practical life. Full explanation of the origin and manner of handling these several types of exchange belongs to subsequent chapters. Exchange of the first class has a bank as drawer[18] and a bank as drawee, and in the case of time bills a bank as acceptor. Judged from the standpoint of personal security, then, this is in general the highest class of exchange. (Compare § 12 on the liability of parties.) Exchange of the second class mentioned above (consisting almost always in long bills) is drawn under a letter of credit or "against a bank credit," and

binding themselves severally or jointly and severally. The bank is usually a corporation.

17 Practically speaking, telegraphic transfers are sold exclusively by bankers to be payable abroad by bankers.

18 We may perhaps speak loosely of the drawer and drawee of a telegraphic order to pay money.

will after acceptance have a banker as principal obligor and a merchant with the liability of the drawer. After acceptance, and even before, it has virtually the same credit rating as the first class. (Chapter VII treats of the bank credit and the letter of credit.) The third class of exchange is inferior in general in point of personal security, since it has merchants only as parties liable.

Personal security is much more important than collateral security, especially perhaps in connection with exchange, though one who is a novice in the subject is unlikely to realize this fact. Distinguished with respect to collateral security, exchange divides itself first of all into two main and obvious classes, (1) exchange without, and (2) exchange with collateral security. Exchange drawn by banking houses proper rarely if ever has collateral.[19] That drawn by traders in goods and securities usually has collateral.

Every distinct class and subclass of exchange may take a distinct rate of exchange. But newspapers publishing market tables do not endeavor to give every one of these distinct rates. They are usually satisfied to give one main table which covers exchange drawn by bankers on bankers. The principal tables reproduced in § 23 illustrate this. In the first two of these, bankers' exchange is divided into subclasses according to length of life on the one hand and domicile on the other. With four classes according to length of life and four according to domicile, this gives sixteen separate rate quotations, as the reader may have observed. The market report will often give the rates for some of the classes of bills of other grades of security than the bankers' drawings, but will not attempt a complete

[19] Acceptance accounts (*see* pp. 144–7) are presumably more often than not, protected by collateral, but this is not collateral security for the bill of exchange itself and is not open to attack by the holder of this instrument.

tabulation for all types and subclasses of these. For instance, in the report reproduced on pages 75–6, we find the following:

Commercial on banks	4.8280	@	4.8290
Documents for payment	4.82	@	4.82⅜
Cotton for payment	4.83	@	4.83¼
Grain for payment	4.83¼	@	4.83½

These are all classes of exchange, though the names given do not indicate it any too clearly to the beginner. One who knows the subject can tell what each item means, though we shall not attempt at present to explain how. All four classes are drafts drawn on England at sixty days' sight by merchants. The first item refers to the general class of bills drawn upon English banks under the authority of commercial letters of credit. Documents will be attached to these drafts but nothing is stated in the table to indicate the fact. The second item covers trade bills, drawn by exporting merchant upon importing merchant, against shipments of miscellaneous sorts of commodities. Documents are attached and will be surrendered to the importer when he pays the draft, hence the phrase "documents for payment." (*See* especially Chapter VI below.) These drafts cannot be drawn on banks abroad because documents are never "for payment" when a bank is drawee. The third and fourth items refer to special classes of bills—again with documents for payment—drawn against exports of cotton and grain respectively. These are types of trade bills of especial importance. Why they enjoy such high rates can hardly be made clear at this point. To be explicit, the last item "grain for payment" means drafts drawn at sixty days' sight by exporters of grain upon the importing merchants with the shipping documents, pertaining to the grain, attached to the drafts and deliverable to the importers against payment of the

drafts whether at the time of maturity or prior to that time.

Inspection shows that the longer the life of a given type of exchange, the cheaper the rate for it will be. Interest or discount is of course the explanation. (The methods of calculating the rates for long exchange will be discussed in Chapter IX.) In the case of the rates on France, cheaper rates mean higher figures because the rates are quoted in the reverse or indirect manner (compare § 22).

26. The telegraphic transfer or cable.—Orders directing the payment of money abroad which are transmitted by telegraph instead of by the mailing of a draft, are known as "telegraphic transfers" (abbreviated "t. t.") and also in this country as "cables." The cable does not involve a written and negotiable bill, but it is still classified as exchange because it occasions the same transactions and payments as a bill. The purchaser of the cable designates the person abroad to receive payment. The bank which sells the cable is analogous to the drawer of the bill, and the bank directed to make payment to the drawee. The bank which sells a cable of the amount of £10,000 for a price in domestic money of $48,750, will find its London balance reduced by £10,000 and its home office funds increased by $48,750 as a result of the operation, in the same way as if it had sold a bill except that in the case of the cable the depletion of the foreign balance will take place earlier, often in fact on the same business day with the sale.

In communicating telegraphic orders banks use individual secret codes. These codes serve the twofold object of reducing cable charges and of guarding against the transmission of fraudulent orders by unauthorized persons. The genuineness of a bill of exchange is judged chiefly by the signature, but, in the absence of a written instrument, the genuineness of the cable is judged in part by secret signs

in the code dispatch, such as test words, constituting the first or last words of the message, or other devices. The purchaser of this form of exchange takes a receipt for his money, which recites the relevant facts of the order, and this he holds as evidence of his claims for reimbursement in the event of the failure of the required delivery of English money to his foreign payee. The selling bank and its correspondent assume no liability for mistakes or delay in the transmission of messages by the cable companies.

The fact that cables sell for a higher rate than demand drafts is due wholly to the priority of their payment abroad, and has nothing to do with the telegraph charges. The latter are as great for small as for large sums and are paid for separately. In the case of relatively small orders, say for less than £5,000, the purchaser pays the cable charges; for larger orders the selling bank is apt to assume these charges.[20]

§ 27. **Sterling rates.**—For historical reasons the money of England is called *sterling*. Likewise exchange drawn on and payable in England is called sterling exchange, or again merely sterling. The British monetary unit, the pound sterling, consists of $123^{171}/_{623}$ (or 123.27447) grains troy of gold $^{11}/_{12}$ fine, with a pure or fine contents of $113^{1}/_{623}$ grains. The one-pound money piece of gold is called the sovereign. The mint par between the United States and Great Britain is 4.866564. That is to say, the British unit as defined by law contains the same quantity of fine gold as 4.8665 + United States gold dollars as they are defined by law.[21] The English money notation is as follows:

1 pound = 20 shillings = 240 pence = 960 farthings.
1 shilling = 12 pence = 48 farthings.
1 penny = 4 farthings.

[20] Margraff, "International Exchange," p. 51.

[21] For more extended comment on the mint par *see* Chapter XV.

The farthing is of little practical consequence. A sum of English money is commonly written in figures in the following manner: £3. 17s. 9d. or £3. 17/9 (namely, three pounds, seventeen shillings, and nine pence—which is, incidentally, the Bank of England's minimum buying price for gold bullion per ounce 11½ fine). £, s, and d, are abbreviations for the Latin words, *libra, solidus,* and *denarius.* Shillings are also abbreviated as "sh." For the purposes of computation it is often desirable to reduce shillings and pence to decimal fractions of pounds. We shall attend to this simple arithmetical problem in a later section.

In our market, sterling rates are at once the most important and the simplest in form. It has already been made clear that these rates are expressed as the number of dollars payable for one pound of exchange. A word is in order regarding the standard scale of intervals along which they rise and fall. There are really two customary scales. The first and older is the scale by eighths of a cent per pound. Beginning say with 4.86 the rates next in order above according to this scale would be 4.86⅛, 4.86¼, 4.86⅜, and so on. Under more recent practice, especially in New York, rates are made to rise and fall by intervals of 5/100 of a cent, so that the rates in order above 4.86 would be 4.8605, 4.8610, 4.8615, 4.8620, and so forward. With this scale, prices may be shaded to a somewhat finer degree than under the earlier one. On occasion the two scales will be found combined. If, where the system of eighths is employed, exchange rises from 4.86⅛ to 4.86¼, the reporter is apt to speak of an advance of ⅛ of a "point." A point must therefore in this case mean 1¢ per pound sterling. On the other hand, a rise of quotations from 4.8605 to 4.8610 is usually called an advance of 5 points, so that in this instance a point means only 1/100 of a cent. In the sterling market, dealers have managed to shade prices to a sufficiently fine degree by the very simple and proper method

of extending the number of figures in the decimal part of the rate, and quotations are not hampered by the peculiar supplementary fractions found in the French and German rates as given in New York.

Under ordinary conditions the rates for bankers' sight sterling fluctuate between approximately 4.88 and 4.84 as upper and lower limits. Ascent above the upper limit is checked by the indefinite supply of bills which will be forthcoming at this point by reason of exports of gold, and decline below the lower is checked by the indefinite demand for bills which will arise because of imports of gold. These limits, called the "gold points," are not invariable even under ordinary conditions, but the range of their movement is a narrow one. They depend upon both countries being on the gold standard in point of practical fact as well as in legal theory.[22] It goes without saying that the present war-time conditions are not ordinary. In the first week of August 1914 there were some sales of sterling cables in New York at the rate of $7.00 per pound! Again on September 1, 1915, New York quotations for cables touched $4.50 per pound, during an exchange flurry!

§ 28. **The rates on France.**—The monetary unit of France, called the *franc*, is defined by French law which declares that 3,100 francs shall be coined from 1 kilogram of gold 9/10 fine. No gold coin so small as the franc is struck, but the franc as a legal unit consists of .32258 grams of standard gold (9/10 fine) or .290322 grams fine. The franc as a unit of account is divided into 100 centimes.

In the table of exchange rates on page 75, bankers' demand francs are quoted at 5.17½. This figure signifies that 5 and 17½ hundredths francs, or 5 francs and 17½ centimes, face value of draft in French money, may be bought for $1 of American money. This means

[22] Gold shipments are considered in Chapter XX and the general theory of exchange supply and demand and the rates, in Chapter XXI.

that New York quotes francs according to the "indirect" method, as we explained this term in § 22. If one pays at the rate of $1 for 5.17½ francs, each franc costs 19.32 + cents, and there is no compelling reason why the rate should not be quoted as cents per franc (or dollars per hundred francs), as it is in the smaller dealings in the interior cities of the United States. But in New York the dealers have chosen to quote bills on France according to the indirect method. The price of a sight draft on Paris for say 4191.75 francs at the rate of 5.17½ is to be ascertained by dividing 4191.75 by 5.175. For every 5.175 francs face value of the draft the purchaser must pay $1, and the draft will cost as many dollars as 5.175 is contained times in 4.191.75, namely $810.

The ordinary scale along which the French rate rises and falls has intervals of ⅝ of a centime. Going in one direction from 5.17½ the next rates would be in order

5.17½
5.18⅛
5.18¾
5.19⅜
5.20 etc.

5.18⅛ is a cheaper rate than 5.17½, since under it the buyer receives more French money per dollar, or pays a less number of dollars for a given sum of French money. Though the scale of intervals of ⅝ of a centime is customary, it is not rigidly followed. Thus in the table on page 75, cables are quoted at 5.17¼ plus 1/16. Disregarding the "plus 1/16" for the present, 5.17¼ is a figure lying outside of the ordinary series which jumps from 5.16⅞ to 5.17½. The explanation given for the customary intervals, is that ⅝ of a centime is very nearly equivalent to ⅛ of a cent, American money. The latter was for a long time the standard interval in sterling quotations, and so a closely corresponding

interval was adopted in the quotations of rates on France.[23]

The supplemental fractions in the French rates.—Competition has reached the point which makes it necessary for dealers to shade prices to a finer degree than is possible with the interval of ⅝ of a centime. The device employed to effect this object is the addition to the main rate of the supplemental fractions, *plus* or *minus* 1/16, 1/32 or 1/64, etc. Thus (table on page 75) we find the rate for bankers' 60 day bills quoted as "5.19⅞ less 1/64." Again (table on page 76), the *Commercial and Financial Chronicle* gives the high rate for long francs as "5.19⅞ *h* @ 5.19⅞ *a*," and explains in a note that *a* signifies "less 1/16 of 1%," and *h* "less 3/32 of 1%." "5.19⅞ less 1/16 of 1%" is of course near the rate of 5.19⅞ flat. Adjacent to 5.19⅞ flat on either hand in the conventional scale are 5.18¾ and 5.20. *But 5.19⅞ less* 1/16 does not lie between 5.19⅞ and 5.18¾, but between 5.19⅞ and 5.20!

With regard, now, to the precise meaning of such supplemental fractions as "plus 1/16" or "less 1/16," we may begin by explaining what they do not signify. They do not signify simply plus or minus 1/16 centime. If this were their meaning, the rate *5.19⅞ less* 1/16 would merely stand for *5.19*15/16 and might be so written. (That is, 5.19⅞ equals 5.19 15/16, and this less 1/16 would be 5.19 14/16.) The fraction "less 1/16" means "less 1/16 of 1% of the price of the bill," and signifies that the purchaser is to pay for the bill at the rate of $1 for each 5.19⅞ francs and is then to receive a rebate of 1/16 of 1% of the total price of the bill as first figured at 5.19⅞ flat. The fraction "less 1/16" means a drawback of 1/16 of 1% to the purchaser, while "plus 1/16" means that he must add this amount to the price. To illustrate, suppose a purchaser desires to buy a bill for

207,750 francs @ 5.19⅞ less 1/16.

[23] H. K. Brooks, "Foreign Exchange Text-Books," pp. 113–14.

The price of this bill at the flat rate of 5.19⅜ would be found as follows:

5.19⅜ = 5.19375

If 5.19375 francs cost $1, 207,750 francs will cost as many dollars as 5.19375 is contained times in 207,750.

5.19375) 207,750.00000 (40.000

207,750.0

or $40,000.

The supplemental fraction indicates that the purchaser is entitled to a reduction or rebate of 1/16 of 1% of $40,000. 1% of $40,000 is $400, and 1/16 of this is $25. Therefore, since $40,000 — $25 = $39,975,

207,750 francs @ *5.19⅜ less* 1/16 will cost $39,975.

If the rate were 5.19⅜ plus 1/16, the price of the bill would be $40,025. The use of the technical supplementary fractions, taken in connection with the indirect method of quoting the main part of the French rate, makes the whole figure a puzzling one to the novice.[24]

§ **29. The rates on Germany and other countries.**—The money unit of Germany is the *mark*, consisting in .398274

[24] To look a little further into the curiosities of this notation, we may explain that to place "minus 1/16" after a rate brings that rate a little more than half way towards the next cheaper main rate. Thus *5.19⅜ less* 1/16 is a little closer to 5.20 than it is to 5.19⅜. On the other hand *5.20 plus* 1/16 is a little closer to 5.19⅜ than to 5.20! But the two rates, *5.19⅜ less* 1/16 and *5.20 plus* 1/16 are almost identical. The interval of ⅝ centime between the main rates is an interval of almost exactly ⅛ of 1%. Consequently an addition or subtraction of 1/16 of 1% to or from any main rate takes us almost exactly half way to the next rate. In point of fact it takes us a shade beyond the half way point. The reader will doubtless be interested to note that such fractions as 1/32, 3/32, 1/64, etc., are also employed on occasion.

grams of gold 9/10 fine. It is divided into 100 *pfennigs*. The mark has a "value," as measured in gold contents, of about 23.8¢. The table on page 75 shows demand drafts on Germany opening at *95 3/16 less 1/64*. As in the case of the quotations on France, the rate here consists of a main price and a supplemental fraction. The German quotations, however, are not so deceiving as the French, for the main price is a direct rate, namely the number of American cents asked for 4 marks. The apparent reason for choosing 4 marks for quotation instead of 1, is that 4 marks is nearly the equivalent of 1 dollar. Since the rate is quoted in the direct manner, it is cheaper when lower and dearer when higher, in this respect being like the sterling quotation.

Suppose a buyer desires a bill for 128,000 marks at the rate of *95 3/16 less 1/64*. Beneath is shown the method of calculating the price of this bill without the use of tables. 128,000 marks contains 32,000 (128,000 ÷ 4) units of four marks. 32,000 units (of 4 marks each) at 95 3/16¢ each, would cost $30,460, calculated as follows:

95 3/16 = 95.1875 = $0.951875
.951875 .....dollars per unit
32,000.....units bought

1903.750000
28556.25

30460.000000.....cost of bill in dollars.

The supplementary fraction, *less 1/64*, gives the purchaser a right to a reduction or rebate of 1/64 of 1%.

1% of $30,460.00 = $304.60
1/64th of 304.60 = 4.75

The final price of the bill, therefore, will be $30,460.00 less $4.75 or $30,455.25. German exchange is commonly quoted

by interior banks in the United States in cents for 1 mark, or the number of dollars for 100 marks.

The monetary unit of Holland is the guilder, called also the gulden or the florin. Measured according to metallic contents, 1 guilder = $.402 —, or $1 = 2.48 + guilders. Bills of exchange payable in guilders are quoted at so many American cents per guilder. Sometimes guilders are quoted in cents and eighths of cents with supplementary fractions similar to those used in the French and German rates.

With respect to New York's rates on the less important countries, we may content ourselves with the general statement that Italian, Swiss and Belgian exchange is quoted in the same manner as the French. Italy, Switzerland and Belgium have money units with the same metallic contents as the French. Exchange on Spain, Austria-Hungary, the Scandanavian countries, Russia, and other lands in general, is regularly quoted as the amount of American money to be paid for one foreign unit.

Exchange on London, taking the world at large, is almost always quoted in the simplest and most direct manner by giving the number of local monetary units payable for one pound of draft or telegraphic transfer as the case may be. London itself, on the other hand, quotes exchange on countries foreign to Great Britain in most instances in the indirect fashion. Thus when Paris on London stands at say 25.20, London on Paris will be also at 25.20 or some figure very close to this!

CHAPTER VI

THE DOCUMENTARY TRADE BILL

§ 30. The documentary bill of exchange.—The documentary bill, or documentary draft, is a bill of exchange to which a bill of lading and usually certain other incidental documents are attached primarily for the purpose of serving as collateral security. Not infrequently the seller of stocks or bonds to a foreign purchaser draws upon the latter, commonly at sight, and attaches the certificate of stock or the bonds to the draft in part to serve as collateral. A draft made up in this manner should probably be called a documentary bill, but ordinarily one would mean by this term the draft of a merchant with a bill of lading attached.

When a draft is drawn by a seller of merchandise as a means of obtaining the sale price, we speak of the instrument as being drawn "against" the merchandise, or "against" its shipment, while we say it is drawn "upon" the person who is drawee. As one would suppose, typically the bill of lading attached to a draft is the one covering the particular lot of goods against which or on account of which the draft in question is drawn. The legal effect of attaching the bill of lading is, in brief, to enable the holder of the draft to resort to the merchandise in case the draft should be dishonored.[1] The vast majority of foreign bills of exchange drawn by merchants are documentary drafts, and this holds good equally whether the merchant draws upon another merchant, namely the importer, and thus

[1] The chief discussion of the nature of the rights of the holder of the draft running against the merchandise, will be found in § 42 below.

creates a "trade bill," or draws upon a bank under a letter of credit.[2]

The first reason for attaching documents.—Speaking at present of the trade bill, there are two reasons for attaching the shipping documents. The first is to give to the banker or other purchaser of the draft, a legal interest in the merchandise, which will enable him, or a holder subsequent to him, to force the sale of these goods in the event of the dishonor of the draft, and to reimburse himself so far as possible from the proceeds of this sale for his failure to collect the amount due upon the instrument. It is to this we have reference when we say the merchandise (or indifferently, the bill of lading) serves as collateral security.

Collection and advance against collections.—It should be stated, however, that a bank is by no means always a purchaser of a draft which it takes from the drawer or holder subsequent to the drawer. Often the instrument is taken "for collection" only. This signifies that the one who deposits it with the bank is to receive the proceeds which it will yield, only after the drawee has made payment and the amount so paid has been returned to the collecting bank. Banks receive drafts for collection generally in cases where they do not care to make outright purchases of the instruments. But in these instances they are often willing to make a cash advance of an amount somewhat less than the expected returns from the instrument, especially if the depositor is a regular customer in good standing. These loans or advances are made at a stipulated rate of interest and against the deposited draft, and the proceeds which it yields, as security.

A second reason for attaching documents.—There is a

[2] The term "trade bill" is here used to signify a draft of a merchant on a merchant, though it might be used more broadly to cover any draft originating in trade and thus the documentary draft of a merchant on a bank.

second reason for attaching the documents to a draft, in addition to the one that they may serve as collateral security, and this reason holds good even where the draft is deposited for collection without an advance against it. The importer, or man at the other end of the mercantile transaction from the drawer, cannot obtain his goods until he procures the bill of lading properly indorsed. The exporter safeguards his interests by putting this document in the hands of the holder or custodian of the draft, with appropriate instructions, so that the importer cannot get the goods until he has received presentment of the draft and has honored it, either as in some cases by acceptance merely, or as in most cases by acceptance and payment both. Thus even if purchasing banks did not demand the bill of lading as their own collateral security, the exporter would still have a motive to make up a documentary draft, as this plan furnishes him with more protection against loss through fraud or failure on the part of the importer, than the alternative plan of sending the bill of lading direct to the importer through the mails and independently of the draft.

Clean bills.—It is not to be understood that between exporters and importers of standing, especially where there are established relations, bills of lading are not sometimes mailed direct and independently of drafts. Sometimes the exporter sends the bill of lading along and draws separately, and at other times he may send it without drawing at all under an agreement that the importer will subsequently remit exchange in payment. (In many instances the importer will be asked to remit in advance.) If a bill of exchange does not have documents attached it is known as a "clean bill." All bills drawn by purely banking houses are clean. If a bill begins its life with documents attached but these are detached before its discharge, it becomes for the last part of its life a clean bill. It is rare for a documentary draft on a merchant to become a clean bill before the drawee

grants acceptance to the instrument. If a merchant can sell a clean bill on another merchant it will be because of his, the drawer's, high standing before the banks.

The several documents attached.—The principal papers which constitute what we may call the standard documentary bill are (1) the draft, (2) the bill of lading, (3) the insurance certificate, (4) the hypothecation certificate (unless the hypothecation is provided for by a general letter of hypothecation), and (5) various other documents including at times certain consular and inspection certificates, and including often the invoice, or bill of goods. A special document of hypothecation or pledge (compare § 33) is not *necessarily* present, the mere delivery of the bill of lading being taken to effect a pledge without the execution of special acknowledgments to this intent.

The terms of the sale and the draft.—In general the terms and character of a draft are governed by the understanding existing between the buyer and seller of the goods. This understanding may be expressed or it may be implied in the usages of the trade. Again it may unfortunately be non-existent, which often means trouble. A demand draft may of course be drawn with documents attached. So far as the bill of exchange has been used by American domestic shippers, demand drafts or drafts with very short lives have been chiefly employed. It is the hope of our Federal Reserve Banks to establish the free use of long documentary bills in American internal commerce in the future, and this hope is already beginning to be realized. In foreign trade the usual documentary bill runs for sixty or ninety days if not for a longer term. The amount of the draft is commonly the total sum for which the goods are sold but occasionally a certain prearranged percentage of this sum.

Bills in sets.—The foreign trade bill, like most other foreign drafts, is regularly drawn in a plural number of

copies, in "duplicate" or "triplicate." When drafts are thus issued "in a set," one of them will be marked "first of exchange" or "original," another "second of exchange" or "duplicate" and so on. The first of exchange will read as an order to pay "second and third unpaid" (*i.e.*, provided neither second nor third of exchange have been paid), and so forth, so that the payment of any one copy has the legal effect of making other copies void. The law makes possible the issue of bills in sets of any number of copies desired. The issue of bills in sets is taken advantage of for various purposes. One object is to enable the holder to forward the first and second of exchange by separate steamers as a measure of safety. A third of exchange when issued is likely to be kept by the holder as a matter of record. A bill of lading is also issued in as large a number of copies as desired, but these are not marked "first," "second," and so on. Any one of these copies is, when properly indorsed, good for the merchandise at the terminal. The holder of a documentary draft has to see to it that he has control of or knows what is done with all the copies of the bill of lading.

§ **31. The bill of lading.**—A bill of lading is the written acknowledgment of a transportation company of the receipt of goods for carriage to a designated place. The instrument contains a description of the goods, with a record of packages and marks, if any, to identify them, and a recital of the terms of agreement with the shipper under which the company undertakes the forwarding. The shipper is also known as the *consignor* and the one to whom the goods are sent as the *consignee*. To ship is as well *to consign*, and a shipment is also a *consignment*. In a narrower but fairly common commercial sense, "to consign" means to ship property to a person for sale or reshipment by him as a mere agent or factor of the shipper. If A sends goods to B "on consignment" in this sense, B is not an independ-

ent purchaser of the goods but is an agent of A, and A takes the mercantile risks. The consignee as we are to speak of him in the present connection, however, is simply the person to whom goods are shipped, whether he is an independent purchaser or a mere agent of the shipper.

Distinguished according to their manner of indicating the person to whom the goods are made deliverable, there are two classes of bills of lading. To quote the Federal Bills of Lading Act of August 29, 1916, "a bill in which it is stated that the goods are consigned or destined to a specified person is a *straight bill*. . . . A bill in which it is stated that the goods are consigned or destined to the order of any person named in such bill is an *order bill*."[3] The order bill is the one in proper form for use as collateral security and consequently the export bill of lading almost always takes this form because it is designed to be attached to a draft. Such a bill will make the goods deliverable either to the order of the shipper himself or to the order of some bank which is about to finance or help finance the export whether through the direct purchase of the exporter's draft or through the issue of a commercial letter of credit. If the bill of lading reads to the order of the shipper himself, the transportation company will surrender the goods only to the person to whom the shipper orders them delivered. This order is conveyed by an indorsement on the bill of lading itself. But this indorsement may be either (1) in blank or (2) to a specified person.[4] In the latter case the person designated may himself indorse again either in blank or specially, and thus again transfer the

[3] §§ 2 and 3 of the act. The text of this act, which went into effect January 1, 1917, may be found among other places in the *Federal Reserve Bulletin* for October, 1916, issued by the Federal Reserve Board, Washington, D. C.

[4] Compare the indorsement in blank and special indorsement of bills of exchange and promissory notes, as described in § 11.

bill of lading and the right to receive the merchandise. But the standard form of indorsement of export bills made out to the order of the shipper is in blank. As one could infer, this indorsement is constituted by the shipper's signature without a specification of the person to whom the goods are to be delivered, the place for this person's name being left blank. This indorsement has the effect of making the goods deliverable to any rightful holder of the bill of lading, who may procure them (commonly of course at destination) by writing his own name in the blank place. If A exports goods and procures a bill of lading to his own order and indorses the latter in blank, he may then make up a documentary draft for sale to a local bank. The bill of lading will remain in the possession of this bank and its foreign agents (or successors) until delivered to the importer and drawee of the draft, under the documentary instructions.[5]

We may call the importing merchant the *real* consignee for it is to him the goods are really being shipped and to him they will in fact be delivered if he performs his duties towards the exporter's draft. But as has just been explained, this real consignee's name does not appear originally upon the regular export bill as the party to take delivery of the merchandise. This is to prevent him gaining any rights that would interfere with the use of the bill and the goods to which it pertains, as collateral security for the exporter's draft. It is nevertheless expected that in fact he will be the one to take delivery of the goods, and it is necessary that upon their arrival at destination he should be informed of the event by the transportation company. In order that he may be known for this purpose, his name will be entered upon the bill of lading when originally made out, not as consignee but as the "party to be notified." Although every one knows that this indicates a commercial

[5] *See* § 34 below.

expectation that this person will receive the goods, it does not give him any rights in advance of his performance of his duties towards the exporter's draft, which will be prejudicial to the rights of the banker as holder of the bill of lading as collateral security.[6]

Much merchandise for export is shipped over the lines of more than one transportation company. There is often involved at least one railroad company and one separate ocean steamship company. In these instances the company first receiving the goods is usually ready to issue a "through" bill of lading which will relieve the consignor of the necessity of attending to trans-shipment at the point where the second company takes over the goods for further carriage. That is, the through bill of itself gives a claim against the last transportation company for the goods at destination. Through bills cannot be obtained for all routes or all classes of merchandise, but are generally available, and are especially convenient to merchants and banks in the making up and negotiation of documentary drafts. Nevertheless a documentary draft can be handled without the bill of lading being through, although there will be in this case a certain amount of expense and trouble incidental to trans-shipment. Typically the bank which holds the documentary draft takes charge of the trans-shipment and employs brokers in the city of trans-shipment to take care of cartage and rebilling. In large cities and seaports brokers are found who make it their business to attend to matters of this sort, the payment of customs duties on imports, and the like.

Though the through bill is convenient, there are many occasions when it is not taken out even where it can be had, because of the great chances of delay when trans-shipment is left in the hands of the railway or steamship company. Also in this connection the following may be noted from

[6] This legal principle is written into the Federal Bills of Lading Act, in the seventh section of that law.

Mr. A. J. Wolff's report on *Foreign Credits.*[7] "Banks abroad very often refuse acceptance of bills drawn against railway through bills of lading, because they object to bills of lading signed by an ordinary railway employee, and also because the actual departure from port is not apparent therefrom." The first of these reasons has been removed, or at least much reduced in force, so far as exports from the United States are concerned, by the new Federal Bills of Lading Act, already mentioned, which places upon railway companies a sufficient responsibility for the signatures of their agents, a responsibility apparently lacking under common law.[8] A substantially similar act has also been passed by states numbering 16 at the present time. The standard export bill to which this section has been devoted, rejoices in the full name of the *through order notify export bill of lading.*

§ 32. **The insurance certificate.**—The next member of the group of instruments constituting the documentary bill is the insurance certificate. Generally speaking, merchandise for export is not specially insured for the inland part of its haul,[9] because the liabilities assumed by railway companies take the place of insurance. But the ocean transport lines do not take on these liabilities and shippers procure insurance against loss at sea from the regular marine insurance companies. This can regularly be obtained on the mere evidence of the bill of lading. It is the recognized custom to permit insurance for sums from 10 to 20% in excess of the invoice value of the goods, to cover expected mercantile profits. Like the bill of lading, the insurance certificate is made out to the order of the shipper and indorsed by him in blank. Large houses enjoying the con-

[7] "Foreign Credits," by A. J. Wolff, Special Agents' Series, No. 62, U. S. Department of Commerce and Labor, p. 110.

[8] *See especially* § 22 of this act.

[9] To this there are exceptions.

fidence of the insurance companies, often obtain what are known as "open policies," under which they are permitted themselves to issue insurance certificates to their own order against their consignments of merchandise as shipped. This plan saves the time and labor required to make a special application for insurance against each and every shipment of goods. Premiums due under these open policies will be paid at stated intervals. The insurance company is of course to receive an advice for each certificate of insurance issued by the merchant to himself.

Insurance may often be obtained abroad at lower rates, and therefore it is not uncommon for an arrangement to be made to have the consignee of the goods procure the policy. In these cases the shipper has no insurance certificate to put in his documentary bill, but with the agreement of the purchaser, he substitutes a written statement "insurance effected abroad."

§ 33. The hypothecation certificate and other documents.— The hypothecation certificate is the instrument in which the drawer of the draft makes the legal acknowledgments which constitute any holder of the draft also a holder of the bill of lading and insurance certificate as collateral security. As stated on an earlier page, in practice these express acknowledgments are not always regarded as indispensable in making up documentary bills. To "hypothecate" means to give personal property as a pledge to secure a debt or liability. But not every case of so-called hypothecation in banking practice would seem to be a strict legal pledge, for the banker not infrequently secures a title to the goods, which is inconsistent with a pledge pure and simple. However, following the looser usages of commercial speech, we may say that the hypothecation certificate is the formal legal recital which pledges the bill of lading and the merchandise covered by it, as collateral security for the draft. If a bank expects to purchase from a given

firm a large number of documentary drafts, it often takes from this firm a *general letter of hypothecation* or general hypothecation power. This instrument will cover all bills of exchange with collateral security, which are negotiated by its issuer to the bank during the life of the letter. It saves the labor of drawing up a separate certificate of hypothecation for each and every bill. When there is such a separate certificate it is attached to the draft along with the other documents.

The specimen letter of hypothecation to follow is one in actual use by an American bank though the name of the institution is omitted. It is given in full because of the great practical interest of its numerous provisions.

General Letter of Hypothecation

To The Hundredth National Bank of New York:

Anticipating all future sales to you and all future negotiations by you for the undersigned, of bills of exchange with shipping documents for goods or other property attached as collateral security and held by you for their due payment, it has been and is agreed between us as follows:

1. The stipulations contained in this Memorandum shall be deemed to be continuing and ambulatory, and are to apply to all cases in which such bills of exchange may at any time either directly, or through other persons, be negotiated with or sold to you by the undersigned, and this Memorandum shall have the same force until the undersigned shall give you notice of intention to terminate it, as if a separate Memorandum were signed by the undersigned on each purchase or negotiation.

2. You may (but it is not imperative on you to do so) insure any goods or property of any kind forming the collateral security for any such bill or bills of exchange from sea risk and risk of transportation by land, including loss by capture, and also from loss by fire on shore, and add the premiums and expenses of such insurances to the amount chargeable to the undersigned in respect of such bill or bills, and take recourse upon such goods in priority to any other claims thereon, or against the under-

signed, without prejudice to any claim against any indorser or indorsers of the said bills, for reimbursing you, or the person or persons paying the same, the amount of such premiums and expenses, and you may sell any portion of such goods which may be necessary for payment of freight, insurance and expenses, and generally take such measures and make such charges for commission, and be accountable in such manner, but not further or otherwise than as in ordinary cases between a merchant and his correspondent. And the undersigned consent to the goods being warehoused at any public or private wharf or warehouse selected by the Drawees or Acceptors of the bills, unless you offer an objection to such wharf or warehouse.

3. You may take conditional acceptances to all or any of such bills, to the effect that, on payment thereof at maturity, or under discount, the Documents handed to you as collateral security for the due payment of such bill or bills shall be delivered to the Drawees or Acceptors thereof, and authorization shall be taken to extend to cases of acceptance for honor. Subject, nevertheless, to the power hereinafter given, in case the drawee shall suspend payment, become bankrupt, or go into liquidation during the currency of any such bill or bills.

4. You may at any time or times before the maturity of any bill or bills of exchange, as aforesaid, grant a partial delivery or partial deliveries from time to time of any part or parts of such goods or other property in such manner as you or the Acceptors of such bill or bills of exchange, or their representatives, may think desirable to any person or persons on payment of a proportionate amount of the invoice cost of such goods, or other property, or of the bill or bills of exchange drawn against the same.

5. In case default be made in acceptance of the said bills on presentation, the undersigned immediately on receiving notice from you that you have been advised by telegraph or otherwise of such non-acceptance, and without waiting for or requiring the protest of said bills, will pay you the amount thereof, with all charges of every description incurred by you in consequence of such non-acceptance, and at your option the undersigned will give you satisfactory additional margin in cash or securities, all

in addition to your possession in the United Kingdom or elsewhere, of the goods or other property securing said bills or the documents therefor; and your account of the disbursements, commissions and charges so incurred shall be received by the undersigned as sufficient and final evidence thereof.

6. In case default be made in acceptance or payment of any of the said bills, or if the Drawees or Acceptors should suspend payment, or be adjudicated bankrupt, or execute any deed of arrangement, composition or inspectorship, or take any other step whatsoever toward effecting a compromise or arrangement with their creditors during the currency of said bills, you may at any time after any of the aforesaid events taking place, sell the goods or other property or any part thereof, without notice to or the concurrence of any person whomsoever, without waiting for the maturity of the said bills, and either by public auction or private sale, and you may act in all respects as if you had been the direct consignee of the goods or other property, charging such commission as is usual between a merchant and his correspondent in ordinary cases, and shall apply the net proceeds of any sale, after deducting any payment under the powers herein contained, with interest thereon, and the usual commission and charges, in payment of the bills, with interest, re-exchange and other charges, and may apply the balance, if any, toward the liquidation of any other debt and liability of ours to you, whether or not the same be then payable or ascertained, it being hereby agreed that the goods themselves, or other property, until sale, shall be liable for and be charged with the payment of all such bills, with commission, interest, re-exchange and other charges, debts and liabilities; and we agree that all account sales and accounts current furnished by you, in respect to the said goods and produce, shall be received by us as sufficient and final evidence of their accuracy.

7. In case the net proceeds of such goods shall be insufficient to pay the amount of any such bill or bills, with re-exchange and charges, you may draw on the undersigned for the deficiency, without prejudice nevertheless to any claim against any indorser or indorsers of the said bills for recovery of the same or any deficiency on the same; and the undersigned agree to honor such

drafts on presentation, it being understood that the account current rendered by you or by the holder or holders of such bill, shall be sufficient proof of sale and loss.

8. Whether the aforesaid powers of sale shall or shall not have arisen, you may at any time before the maturity of any such bill or bills, accept payment from the drawees or acceptors thereof, if required so to do, and on payment you may deliver the bills of lading and shipping documents to such drawees or acceptors; and, in that event, you or the holder or holders of any such bill or bills are to allow a discount thereon, not exceeding five per cent. per annum, for the time they may have to run, as follows:

At one-half per cent. per annum above the advertised rate of interest for short deposits allowed by the leading London Joint Stock Banks, if payable in Great Britain.

At the current minimum rate of discount of the national banks of France, Italy, Belgium and Germany, if payable in those countries.

At the current rate of rebate for documentary bills, if payable in Switzerland.

At the current rate of rebate allowed by the Exchange Banks, if payable at any place east of Suez.

9. The delivery of any collateral securities to you shall not prejudice your rights on any such bills in case of dishonor, nor shall any recourse taken thereon affect your title to such securities to the extent of the liability of the undersigned to you as above.

10. Notwithstanding any alteration by death, retirement, introduction of new partners or otherwise in the persons from time to time constituting the firm of the undersigned or other the style or firm under which the business at present carried on by the undersigned may be from time to time continued, this Letter and the powers and authorities hereby given are to hold good as the Agreement on the part of the undersigned or of the firm as aforesaid with you, and each negotiation of a bill or bills hereunder is to be treated as a renewal by or on behalf of the undersigned and of the firm as then existing of the terms of this Agreement.

11. You are not to be responsible for the default of any broker or auctioneer employed by you for any purpose.

12. All rights, powers and authorities herein given to you may be exercised by you or any of your managers or agents or the holder or holders for the time being of any bill or bills of exchange as aforesaid, and all agreements and provisions contained in this Letter of Hypothecation shall extend and apply to and for the benefit of all holders for the time being of any such bills.

Dated this day of one thousand nine hundred and
Witness to the signature of:

.....
.....Witness.
.....Occupation.
.....Address.

The letters of hypothecation of different American banks appear to be much alike. The writer of the letter is the drawer of the bills of exchange to which the letter pertains. In the foregoing specimen, paragraph 6 contains the principal clauses pledging the goods as collateral, but as we see, there are numerous incidental provisions binding the drawer to the bank or its successors in various ways. The chief among these briefly stated are as follows:

(a) The bank may insure the goods at the drawer's expense. So far as satisfactory insurance has been provided by the drawer or the importer in advance, no resort to this power would be taken by the bank.

(b) The bank may sell any portion of the goods required to pay any freight charges left unpaid by the shipper.

(c) The drawer consents to the selection of any warehouse abroad by the importer which is satisfactory to the bank. To illustrate the application of this provision, let us suppose the goods have arrived and have been placed in a warehouse at destination, and are then destroyed by fire. The collateral security thus disappears except for the in-

surance. Suppose further the drawee of the draft (the importer) now refuses to honor the instrument, whether through financial inability or for other reasons. The provision now before us will have the effect of preventing the drawer (or exporter) from setting up any counterclaim based on alleged improper warehousing of his merchandise, when the holder of the draft exercises his right of recourse. The drawer has expressly estopped himself from setting up such a claim. If he pays the draft and all incidental charges connected with it and the merchandise, the insurance will belong to him. If this insurance is good he will have to wait till it can be collected. If it should turn out to be uncollectable, it will be his loss, unless he should be able ultimately to obtain reimbursement through some action against the importer. In a word it is agreed that the exporter who sells his draft to the bank, and not the bank, is to take the risks connected with the merchandise.

(d) The bank may take from the drawee a *conditional* acceptance, where the condition is that the documents must be delivered to the drawee for the act of payment. (We shall speak of this point in a moment.)

(e) The bank may grant the acceptor partial deliveries from the consignment of goods in return for payment by him of a proportionate amount on account. (Such comment as we have to make on this subject is best reserved for § 36.)

(f) In paragraph 5, protest for non-acceptance (compare § 12) is waived, but the letter does not make it certain that protest for non-payment is waived. Without this waiver protest would be necessary to prevent the drawer from escaping all his liabilities on the draft except his vendor's warranties (compare again § 12).

(g) If in case of non-acceptance or non-payment of the draft, the net proceeds of the sale of the goods prove in-

sufficient to pay the amount due on the draft plus charges and commissions, the drawer agrees to honor a draft to be drawn upon him for the amount of the deficiency.

(h) In the event of sale of the goods by the bank, the sale may be public or private, and the bank is to be free of responsibility for default by any broker who makes the sale.

(i) The bank's account of charges and commissions is to be final and not subject to contest.

(j) All rights and powers granted the bank in the letter of hypothecation are granted any subsequent holder of a draft drawn under it for the time he holds it.

We have seen that this letter authorizes the holder of a draft to take a "conditional" acceptance of a specified character. Acceptances have already been discussed in §§ 6 and 12. They are either general or qualified. A general acceptance, the kind ordinarily given, "assents without qualification to the order of the drawer."[10] It makes the drawee unconditionally bound to pay the instrument according to its tenor. A qualified acceptance makes payment depend upon some condition specified in the acceptance (this giving us the "conditional" acceptance) or it binds the acceptor to pay only part of the amount for which the bill is drawn (this giving us the "partial" acceptance), or it modifies the liability of the acceptor in some other way.[11] We have already learned that the right of recourse upon the indorsers or drawer of a bill as parties secondarily liable, is dependent upon (1) proper presentment (2) dishonor, whether for non-acceptance or for non-payment, and (3) due notice of dishonor. Suppose now on presentment of the bill the drawee is willing to give only a

[10] *See* § 227 of the Uniform Negotiable Instruments Law, as already cited.

[11] § 229 of the Uniform Law.

qualified or conditional acceptance. Will or will not this operate as dishonor for non-acceptance? The answer is, the holder may treat the instrument as dishonored in this event and exercise an immediate right of recourse upon the parties secondarily liable. In other words, the law gives him a right either to receive an unqualified acceptance or to have recourse. He may take a qualified or conditional acceptance at his own option (upon the supposition perhaps that it will be sufficiently binding on the acceptor under the practical circumstances), but the effect will be to release the parties secondarily liable at once and for all time (except for such lesser liabilities as may remain under their vendor's warranties).[12] Without the consent of the parties secondarily liable, the holder cannot acquiesce in a qualified acceptance and retain his rights of recourse upon these parties. The type of conditional acceptance authorized by the letter of hypothecation now before us, is one framed in any words conveying the meaning "I, the drawee, bind myself to make payment of this bill provided at the time of payment, if not before, the documents attached to it as collateral security are surrendered to me." The motive an importer might have for insisting upon such a condition is evident. An unconditional acceptance would bind him to pay at maturity even if the shipping documents were not present to be offered to him in return for payment. Commercially speaking, he might be compelled to pay for his goods without gaining control of them. However remote this possibility, he may guard himself against it by employing the form of acceptance above referred to. Though this would seem reasonable under the circumstances, the acceptance would nevertheless be conditional. In our letter of hypothecation, the drawer assents

[12] Compare § 12, p. 36. The drawer is included among the parties secondarily liable, even if there has been no acceptance. *See again* § 12.

in advance to a conditional acceptance of this specific character. This permits the banker or holder of the bill to take this kind of acceptance without losing the right of recourse on the drawer, in the event of subsequent dishonor by non-payment.

In addition to the bill of lading and the documents of insurance and hypothecation already discussed, certain other papers often accompany documentary drafts. Usually an invoice, or bill of goods, is present, giving an itemized statement of merchandise shipped with prices and charges.[13] The regulations of different countries governing import duties and the laws pertaining to sanitation make obligatory the taking out of various types of consular certificates by persons shipping goods into these countries. It is usually necessary or convenient for these certificates to accompany the bill of lading to enable the goods to be entered into the country of destination. The banker is interested in having all such documents in order, for if he should be compelled to resort to the merchandise as collateral, realization upon them by sale might be much embarrassed by any irregularity. Furthermore the chances of repudiation of a trade bill by the drawee might be increased by failure to attend to the requirements which must be fulfilled to enable him to come at the goods promptly.

The customs regulations of the United States provide that "no merchandise exceeding $100 in value, except personal effects accompanying a passenger, shall be admitted to entry without the production of a certified invoice thereof, unless the importer shall make application under

[13] In many instances the invoice may be contained in a sealed envelope addressed to the purchaser, to avoid publicity. Margraff, "International Exchange," p. 28. The invoice *per se* is of course not evidence of a very conclusive character for the banker as to the value of the merchandise collateral. The reputation of the shipper must be considered.

oath, showing that it is impracticable to produce such invoice. . . ."[14] A certified invoice is created by the shipper's presenting his invoice to an American consul at or near the place of shipment and signing a declaration that the document is in all respects correct and true, whereupon the consul certificates.[15] Most documentary bills against shipments into the United States, whether drawn on the United States or drawn under a bank credit on some third country as England, will have certified consular invoices attached at least at first.[16] [17]

The writer is informed that sometimes the drawee of a documentary bill, whether the importer or a bank secured by him to serve as drawee, stipulates that the drawer shall obtain and attach to the draft, a certificate of inspection from a designated third party, the latter being appointed as representative of the buyer to see that the goods called for by the agreement of sale and specified in the invoice, are actually shipped in correct quantity and quality.

§ 34. **The documentary instructions.**—The importer who is drawee of a documentary draft has the right in any event to receive the attached bill of lading at the time when he *pays* the draft. But he may be treated more liberally. The bill of lading may be handed over in return for his mere *acceptance* of the draft. The disposition of the

[14] Article 202, "Customs Regulations of the United States," edition of 1915, Treasury Department, Division of Customs, Washington, D. C. Chapter V of this book of 733 pages, contains most of the regulations pertaining to invoices.

[15] From article 206 of "Customs Regulations," as cited. Detail in the nature of explanations and exceptions may be found in this publication.

[16] Compare the instructions pertaining to the draft which appear in the specimen commercial letter of credit to be found on p. 137 below.

[17] Considerable information on the subject of documentary security may be found in Margraff's "International Exchange," fourth edition, 1912.

collateral documents is governed by the so-called documentary instructions, which ought always to be determined upon before the draft is drawn and sold. These instructions may be

1. Documents for payment (D.P.)
2. Documents for acceptance (D.A.)
3. Documents for delivery (D.D.)

The last is rare. It would confer an authority to surrender the bill of lading even before acceptance takes place.[18] Under the instructions of *documents for acceptance* there will be a period running from the time of acceptance until the time of payment, typically 60 or 90 days in length plus any days of grace, during which the holder of the draft will have to rely exclusively upon the personal credit of the acceptor and the parties secondarily liable. Consequently the instructions *documents for payment* give the holder the greater security, preserving his interest in the collateral till the end, and these are the usual instructions when a draft is drawn on an ordinary merchant. When the drawee is a bank, *documents for payment* will never be the instructions, but rather *documents for acceptance* or perhaps *documents for delivery.* When a bank is drawee *documents for acceptance* would be understood in the absence of express directions.

A draft with bill of lading attached governed by the instructions of documents for acceptance is called in brief a "documentary acceptance bill." Similarly we have the "documentary payment bill." As said, most trade bills are documentary payment drafts, nevertheless when the drawee is a mercantile house of excellent standing the in-

[18] The reader bears in mind that most foreign documentary drafts are long bills. The instructions documents for acceptance would not be in point in the case of a documentary sight draft.

structions may be documents for acceptance. Against American cotton exports, documentary acceptance bills are drawn in great numbers upon English spinners. The clean acceptances of these firms sell readily in the London discount market, though they are usually subject to a slightly higher rate of discount than the acceptances of bankers.[19]

In general the character of the foreign exchange which arises out of a given commercial transaction depends on the terms and understandings of the sale. These may in part be implied from the usages of the trade. Thus it may be understood that the exporter is to draw, and at sixty days' sight, that documents are to be attached, and that they are to be surrendered only against payment of the draft. The instructions to govern the documents are as much a matter for adjustment between the merchants, as any other agreement incidental to the sale of the goods. Misunderstandings and disputes concerning this matter are not altogether unknown. When the drawer offers a bill for sale to a banker, the documentary instructions will presumably command the banker's attention before he makes the purchase. If he demands that they be *documents for payment,* it is incumbent on the drawer to see to it that his arrangements with the importer permit him to create a bill with these instructions.

§ 35. **Prepayment and the retirement rate of discount.**— In the absence of a special reason, we would hardly expect the acceptor of a bill to come forward and offer to discharge it before maturity. But it is very common indeed for precisely this to happen in the case of *documentary payment* bills. The special reason is not hard to find. The goods against which a term bill is drawn often reach their destination long before the bill matures. It may be of the

[19] *See* an article upon "Financing the Cotton Crop," by Mr. John J. Arnold, in the *Annals of the American Academy of Political and Social Science,* September, 1911, p. 290.

greatest commercial importance to the importer (drawee) to secure them at an earlier date than this maturity, and where they are of a perishable nature it may be imperative. But under the documentary instructions the bill of lading and merchandise are not to be released until the draft is paid. Suppose A of New York sends merchandise to B of London, the price of which is £10,000, it being understood that A is to draw a documentary payment bill on B for this amount at 90 days' sight. A ships and draws on July 1st. The draft is sold to a local banker, is forwarded by him to London and is there presented to B, who accepts perhaps on July 8th. The instrument becomes payable 93 days after July 8th (there being three days of grace) and so matures on October 9th. The date of the arrival of the goods in London depends on the manner of their forwarding, but they might easily be docked say by July 15th. In this case they would be physically available 86 days prior to the maturity of the draft. If we suppose now that B finds it necessary to obtain these goods immediately, we have an illustration which makes clear the origin of the need to make prepayment.

The question perhaps arises, why make the draft run at ninety days' sight under these circumstances? Why not draw it at say ten days' sight? The short draft is sometimes used, but its employment is by no means necessary. In point of fact the importer would, other things remaining the same, prefer to be drawn upon at ninety days rather than for any shorter period of "usance." We shall be better prepared to see why this is the case after we have looked further into the system of prepayment of bills.

Assuming then that the importer has need to obtain his goods on July 15th, the instructions being "documents for payment," he can procure them either (1) by making a prepayment of the bill on that date, or (2) by inducing the bank which holds the draft to let him have the bill of

lading without prepayment despite the instructions. There are reasonable arrangements under which a bank might make the latter concession on its own responsibility,[20] but suppose the plan of action is prepayment. Should the drawee's offer mean prepayment of the full sum due on the draft at its maturity, there could, of course, be little question in practice as to the acquiescence of the holder. But the drawee will hardly expect to prepay on precisely these terms. He will request that an allowance be made him on account of interest for the number of days by which his payment anticipates the date of maturity. That is, he will ask for what is sometimes called a "rebate of interest," and thus for the privilege of making an advanced retirement of the bill for a somewhat lesser sum than the full amount due at maturity. If he discharges the draft say 86 days before it is due, the bank which has held it will have 86 extra days "use" of the money paid over. On the other hand, if he waited till maturity to pay, he himself would have 86 more days use of this amount than if he makes the prepayment. Money being "worth its interest," it is the custom to allow the drawee a "rebate of interest" for payment prior to maturity. In practice this is really a rebate of *discount* rather than of *interest*.

In the case of ordinary obligations, no right of prepayment with a concession in the nature of a rebate of interest, can be said to exist in law or custom. But in the single case of the documentary payment bill of exchange, there is a customary right of this kind of great importance and long standing. Careful search by the present writer has, however, failed to disclose any reference to this matter in the statutory law of England or of the United States, and the right seems never to have been litigated before the courts of either country. Even the case law appears to be

[20] Compare § 43 and the discussion therein of the "trust receipt."

silent on the subject. If the search has not been faulty, this is a singular fact.

The right of prepayment with a rebate of discount being assumed, the question becomes, "At what rate shall this rebate or allowance be calculated?" In countries upon which documentary payment bills are drawn in large and regular volume, there is a public and so to say standard (though not unvarying) rate employed for this purpose. This is the *retirement rate of discount,* called also the "rebate rate" and again the "rebate rate of interest," the last designation being, strictly speaking, inaccurate.[21] It will be found to be a rate of discount in all cases. Where prepayments take place sporadically, as in the past in the United States where comparatively speaking few documentary payment bills have been domiciled, the rate is left to private and individual adjustment between the drawee and the banker holding the bill. This may change in this country in the near future. But in countries where prepayment is standardized there is a public and regular rate. This is better because it prevents the right of prepayment becoming involved in disputes as to the rate of rebate to be allowed.

To give a formal definition: the retirement rate of discount is the rate used to compute the sum which the acceptor of a "documentary payment" bill must pay to the holder in order to redeem or discharge it before the date of its maturity, this prepayment having as its purpose the obtaining of the bill of lading attaching as collateral. The customary retirement rates are:

For bills payable in England.—One-half of 1% above the advertised rate of interest for short deposits allowed by the leading London joint stock banks. This will ordinarily mean that the

[21] "Interest" allowed under the rebate rate can be called such only in the sense of "interest in advance," and this is accurately described as discount. Compare § 17.

retirement rate is 1% below the Bank of England's Official Minimum Discount rate (*see* § 60 below).

For bills payable in France, Italy, Belgium, Germany.—The same as the minimum rates of discount of the national or central banks of these countries.

For bills payable in other countries.—The current rate of rebate set by the leading banks of the countries.

In Central and South America, and in north-west and east Africa, the rebate rate, according to Mr. A. J. Wolff, is agreed upon by the drawer and drawee, and is usually 6% per annum.[22]

§ 36. The actual mercantile receipts for and costs of the goods.—The price quoted in an international transaction is always in a way nominal, at least for one of the parties, if not for both. In our most recent illustration, £10,000 was the price of the goods, but it was neither the exact figure paid for them by the importer nor the amount received by the exporter. The latter, in fact, took in dollars and not pounds at all. In explaining the simple calculations required to find true costs to importers and returns to exporters, we shall ignore the less usual instances of the quotation of price in the money of a third country, and consider only the two cases of quotation in the money, first, of the importer's country, and second, of the exporter's country. Let us now continue with the illustration set forth in the preceding section. On July 1st, A made a shipment to and drew upon B, the draft being for £10,000 and at 90 days' sight. The goods arrived on July 15th and B prepaid the draft on that date. The sum paid over to retire this bill is the first cost of the goods to B. If any charges were left for B to pay they would have to be added. The face value of the bill being £10,000 (or the price of the goods), the amount required to prepay it will depend on the

[22] *See* "Foreign Credits," by A. J. Wolff, Special Agent's Series, No. 62, U. S. Department of Commerce and Labor, Washington, 1913, p. 29.

current retirement rate of discount. Supposing the Bank Rate to stand at 4½% and the deposit allowance rate of the joint stock banks therefore to be 3%, the retirement rate will be 3½%. Since retirement takes place 86 days prior to maturity, the amount payable to discharge the bill is computed as follows:

Face or maturity value of the draft	£10,000.00
Rebate of discount, for 86 days at 3½% per annum ($\frac{86}{365} \times 3\frac{1}{2}\%$ of 10,000)	82.47
Amount required for prepayment of draft	£ 9,917.53

Or 9,917 pounds, 10 shillings and 7 pence.

A's returns from his export consist simply in the amount received by him from the sale of the draft for £10,000 to a local banker, and this depends on the current rate of exchange for the type of bill A has to offer. (If the draft were deposited for collection instead of being sold, A's return will be the net proceeds of the collection, when these proceeds come to hand, and these will be governed to a small extent by commission charges but principally by the future position of a rate of exchange, whether it be a rate in New York on London or one in London on New York.) A banker's buying rate for A's draft will hinge on factors to be discussed at a later point in this book. Let us suppose it to be 4.81. A's returns are then simply $48,100.

Draft for £10,000 sold at 4.81 per pound $48,100

If we change the length of life of the draft from 90 to 60 days, while assuming all other independent factors unchanged, we shall find that the goods will cost the importer something more than before and pay the exporter something more. The cost to the importer will be increased because the date of the maturity has been shifted 30 days nearer to

the day of retirement, and there will consequently be 30 days less time for which the rebate of discount is allowable. The draft would mature 63 days after July 8th, or on September 9th. Being prepaid on July 15th, it has at the time 56 instead of 86 days to run. The first cost of the goods to the importer will therefore be £9946.3, found as follows:

Face or maturity value of the draft.....	£10,000.
Rebate of discount, for 56 days at 3½% per annum	53.7
(56/365 × 3½% of 10,000)	
Amount required for prepayment of draft.....	£ 9,946.3

With the supposed reduction of the length of life of the draft, exporter A will obtain increased returns because he will be able to sell a sixty days' sight draft at a somewhat higher rate than one at ninety days' sight. We assumed a rate of 4.81 for the longer draft. Let us assume roughly the rate of 4.8240 for the shorter one under the same conditions. The rate will be higher precisely because the shorter draft will be subject to a lesser discount if prepaid abroad or, at any rate, will yield its full maturity value at an earlier date than would the longer bill if there is no prepayment. A's returns in the new case will be simply $48,240, calculated thus:

Draft for £10,000 sold at 4.8240 per pound.....	$482.40

If we compare the results from the employment of the two different drafts, we obtain the following:

	Cost to Importer	Returns to Exporter
Draft at sixty days.....	£9,946.3	$48,240
Draft at ninety days.....	9,917.53	48,100
Result of shorter term....	£ 28.77 increase	$ 140 increase.

Thus to reduce the length of the draft is tantamount to raising the price. In general, of course, an importer who agrees to submit to a shorter draft rather than a longer one, will expect and receive a price quotation lowered about enough to compensate for the change. The exact reduction in price which would be necessary to effect this compensation could always be calculated if the governing discount factor is known.

In the fourth paragraph of the letter of hypothecation which was shown in § 33, the drawer of the bill gives assent to any plan of partial deliveries of the goods to the drawee, to which the bank or holder may care to agree, provided the drawee makes prepayments of proportionate amounts on account of the bill. The privilege of taking out partial deliveries might be of great convenience to the drawee. If he should have immediate need for say only a fifth of the consignment at the time of its arrival, it would be necessary to find only sufficient present cash to prepay a fifth part of the draft. Suppose then that importer B finds it desirable to take out a fifth of the goods on July 15th, and one-half on August 20th, and the remainder on August 30th. The schedule beneath will show the payments on account required, and the manner of their calculation.

Date	Portion of goods taken	Proportionate amount of face value of £10,000 draft	Current retirement rate	Days by which prepayment anticipates maturity	Rebate of discount	Amount of prepayments
July 15	One-fifth	£2,000	3½%	86	£16.49	£1,983.51
Aug. 20	One-half	£5,000	3%	50	£20.55	£4.979.45
Aug. 30	Three-tenths	£3,000	4%	40	£13.15	£2,986.85

The three prepayments effect a complete discharge of the debt. It will suffice to explain the method of calculating any one of them. Take the second. On August 20th the importer desires to obtain one-half of the total quantity of goods shipped. He will therefore be required to prepay

one-half of the total face value of the draft, or £5,000. On this date the retirement rate happens to be 3%, and the particular prepayment takes place 50 days before the due date of the instrument. Therefore the rebate of discount for this prepayment will be $^{50}/_{360}$ of 3% of £5,000, or £20.55; and the required prepayment will be 5,000 less 20.55, or £4979.45.

It remains now to calculate the mercantile costs and proceeds of the export in the case where the exporter's price is quoted in the money of his own country. Suppose, then, that in this same export the price is quoted as $48,200. As before, let a 90 days' sight documentary payment draft be drawn upon B, the importer. Under the new supposition everything will be as before except that the number of pounds of face value of the draft will not be exactly predetermined. The new arrangement will mean that A is to draw for a sufficient number of pounds to enable him to sell the draft for $48,200, at the existing rate of exchange. At the time the price in dollars is quoted this rate of exchange will not be precisely foreknown. Suppose that when the shipment is made and the draft is ready for sale, it turns out to be 4.80½. The size of the draft to be drawn by A would then be computed as follows:

```
4.805)48200.000(10031.22
      4805
      -----
       15000
       14415
       -----
         5850
         4805
         ----
        10450
         9610
         ----
          8400
          9610
```

For each pound of draft sold A receives $4.805. 48,200

contains 4,805, 10031.22 times. Therefore 10031.22 pounds of draft would have to be drawn and sold. This is otherwise expressed £10031. 4s. 5d. In the present case, the importer takes what is called the "risk of exchange" for the number of pounds of draft which he will have to pay will vary according to the position of the rate of exchange at the time when the shipment is made. As our illustration has turned out, his taking this risk makes the goods cost him £31.22 more than before. In the earlier case the exporter took the risk of exchange, because the number of dollars return that he would receive was not precisely fixed in advance but depended on the rate at which he could sell the draft for the fixed amount in pounds agreed upon.

In connection with the subject of prepayment, the question doubtless suggests itself, why not draw documentary payment drafts "payable on the date of arrival of the merchandise covered by the attached bill of lading." The writer has been given to understand that drafts of this tenor are not unknown, but they are open to two objections. In the first place, an instrument drawn in this manner would not be negotiable. It would be transferable, but it would fail of negotiability in the peculiar legal sense explained in § 9 of this book. The reason is because it is not made payable at what the law regards as a fixed or determinable future time (compare the definitions of negotiable bills and notes as given on pages 11 and 18).[23] A determinable future time does not mean one that is necessarily predeterminable at every stage of the instrument's

[23] "An instrument payable upon a contingency is not negotiable, and the happening of the event does not cure the defect." *Uniform Law* as already cited, § 23. If an instrument is to be negotiable, it must, as regards the time of payment, be payable either (1) on some definite date specified in the instrument or on a day a designated period before or after a designated date, or (2) on demand or at sight, or (3) at the end of a specified period after demand or sight, or (4) on, or at a fixed period after, the occurrence of a

existence, but one which is certain to come and which is precisely determinable (and not indefinite) when it does come. A draft payable on the date of arrival of a designated consignment of merchandise is not payable at a time which is certain to come. The merchandise might be lost and never arrive. It is eminently desirable from the standpoint of a purchaser that a bill should be truly negotiable in form, and therefore bills payable on the arrival of merchandise suffer from a fundamental defect.[24] There is a second obvious objection to this style of draft, although it is an objection from the importer's standpoint only, because the instrument deprives the importer of the valuable and convenient option which he ordinarily has of taking out the goods and paying for them at any time selected by himself within a considerable period.

The documentary sight draft is not unknown to foreign trade but its use deprives the importer of the option just mentioned, or to make virtually the same point, this draft without supplementary agencies furnishes no means of shifting the burden of financing the merchandise movement to the bank or money lender. With regard to the employment of time bills, but bills of short usance, a news item in the *Wall Street Journal* (of New York) for May 21, 1913, page 8 (article on "Money") is of interest. It explains that at the time the North American Grain Exporters' Association had just induced the representatives of the British grain trade to agree to pay for grain shipments thereafter by submitting to seven days' instead of sixty days' sight drafts. To quote, "the origin of the practice of drawing bills at sixty days' sight against grain shipments dates back to the days when it took a grain-

specified event, which is certain to happen, though the time of happening may be uncertain beforehand.

[24] Special incidental contracts might, however, be employed to preserve the rights of recourse on indorsers (if any) and the drawer.

bearing vessel nearly two months to cross the ocean. Nowadays, however, grain is carried in fast-moving steamers, which reach their destination in less than ten days. In other words, the cargo arrives practically at the same time that the bill covering it arrives and is accepted." But rapid transportation is not likely to change the general custom of drawing documentary payment bills at sixty and ninety days' sight against a great variety of types of exports, because the drawing of bills of this kind coupled with the privilege of prepayment, seems on the whole the most suitable among all methods of settlement by draft on the importer in person as drawee.

The drawee may obtain the funds with which to make prepayment of a documentary draft, by borrowing from some bank against the collateral of the very goods covered by the draft, for as soon as the draft is retired the goods are released and become available as security for the new loan. A loan of this character would be much like any other loan on merchandise collateral or against warehouse receipts, and the detail of its terms and the subsequent handling of the goods would depend upon the local customs and circumstances affecting such arrangements.

CHAPTER VII

THE BANK CREDIT AND LETTER OF CREDIT

§ 37. The nature of the commercial credit.—The purpose of a commercial letter of credit is to enable an exporter to draw his draft upon a bank instead of upon the importer. Before proceeding we had better recapitulate. An exporter may obtain payment (1) by receiving a remittance of exchange (whether directly or through some bank) or (2) by himself drawing exchange. If the exporter draws, the drawee may be either (a) the importer or (b) some bank which has been induced to serve in his stead. Where the importer is the drawee, we have the trade bill, which has been considered in the chapter just brought to a close. We come now to the case of the merchant's draft on a bank. The right of a merchant to draw upon a bank on account of an export is known as a "commercial credit" and also as a "bank credit." The commercial letter of credit is the instrument or document which bears witness to, or affirms the existence of the bank credit. It commonly takes the form of a letter of information and authorization addressed to the merchant who is empowered to draw, and hence its name. There is one other kind of letter of credit, having a certain degree of importance in exchange dealings, known as the traveler's or the circular letter of credit. Of this we shall speak later.

A description of the uses of the bank credit in international trade under the conditions existing before the present European conflict, would necessarily be very largely a story of sterling exchange. Although the war has

brought some important modifications into the exchange methods of the world, and although certain of these will probably persist when peaceful commerce is resumed, the best way at present writing, and the way we shall follow, to explain the system of bank credits is to deal with it as it was before the war broke forth, resorting to concrete illustrations that would be typical then. A very great part of the system will almost certainly endure, and such changes as establish themselves will be primarily alterations in concrete detail, which will leave the general scheme explicable on the same lines of argument as before. When we shall find New York banks accepting drafts both drawn abroad and authorized by banks foreign to the United States, we shall be confronted with nothing new in the way of general system. Illustrations founded on ante-bellum conditions will need to be altered only by changing the nationality of the banks involved.

The simplest instance of the commercial letter of credit is the case where the bank which writes it gives an authorization for drafts to be drawn upon itself. A slightly more complex case is one where the writer authorizes the drawing of drafts on a bank distinct from itself and located in a different country. To illustrate the simpler case first, suppose an English importer of goods from the United States, obtains from a London bank a credit in favor of the American exporter. To do this he will enter into certain agreements with the bank the general character of which we shall consider later. The bank will write a letter of credit, addressed to the American, which it may however hand over to the English merchant for forwarding. Assume the goods to be sold for a price named in pounds sterling. As the American makes the appointed shipment he draws a documentary draft for the number of pounds the consignment is worth at the price agreed upon, and makes the draft run for the number of days' sight

provided for in the letter, usually sixty or ninety. He makes the London bank the drawee. Armed with the letter of credit as his credentials, he approaches a local American bank with an offer of the draft for sale. Taking it for granted this bank is certain of the genuineness of the letter and of the correctness of the documents and draft, it will stand ready to buy at a higher rate than if the draft were drawn merely upon the English importer himself as a private person. Perhaps in the latter case it would be willing to take the draft only for collection. Stated simply, the advantage of the bank credit to the exporter is that it gives great assurance of the salability of his draft and this at a favorable rate. The purchasing bank knows that when the draft reaches London and is accepted according to agreement by the drawee bank, it will become an exemplar of the highest class of paper in that money capital. It will become the unconditional obligation of a London bank. The fact that the drawer, as a party secondarily liable, is a mere merchant will make little or no difference. This acceptance will be discountable in London at the lowest market rates and will have the highest present value in pounds after its arrival. For these reasons it is a good purchase on this side of the water and a relatively high price can be paid for it.

§ 38. **The grant by one bank of the right to draw on another bank.**—Our last illustration has shown in brief how an English importer might provide for settlement by arranging for a bank credit in favor of his foreign creditor to be, namely the exporter. An importer in practically any country in the world may also take out a bank credit for the same purpose. Suppose an American makes application to one of our banks for a credit in favor of an Italian house which is about to make him a shipment. If this bank issues a letter authorizing drafts upon itself, the plan of settlement is as a matter of system identical

with that of the preceding illustration. In this instance we have an American bank providing for an American importation by authorizing a draft on itself payable in American dollars, while in the former case we had simply an English bank providing for an English importation by authorizing a draft on itself payable in English pounds. But under ante-bellum conditions, and these were conditions that had persisted for a long period and had become normalized, neither the banks in the United States nor those in most countries other than England did much business in credits permitting time drafts upon themselves.[1] Instead they issued in the great majority of cases what are called "sterling credits." These comprise any credits under which the beneficiaries are empowered to draw drafts in pounds on English banks, whether the authorization issues from the English banks themselves or with their permission from banks in other countries. There are also similar and self-explanatory terms such as "dollar credits," "franc credits," and so on. Before the war American banks were driving a large and ever-increasing traffic with our importers in commercial credits, as we call them, but the vastly preponderating part of these were sterling credits. A few were franc or mark credits, while almost none were dollar credits. French and German banks were, however, issuing a certain volume of credits upon themselves. During the progress of the war our banks began the issue of dollar credits, in noticeable

[1] It is the generally accepted opinion that prior to the enactment of the recent banking reform laws, *national* banks in the United States (or those chartered by the Federal government) did not have the legal power to submit to or accept time drafts. However, this question had not been passed upon by the Supreme Court of the United States. In any event it may safely be said this mere legal disability of our leading class of banks had little or nothing to do with the failure up to that time of the acceptance business to develop in this country.

volume for the first time in our history. The extensive and permanent use of the dollar draft in Latin-American countries in connection with commerce to and from the United States seems now assured (1919), and it is quite possible the sterling draft will never regain its ante-bellum importance in relation to this commerce.

The authority under which an American bank, or any other non-English bank, issues a sterling credit, is derived from the grant to it by an English correspondent bank of a so-called "acceptance account," of which we shall speak in more detail later.[2] It appears then that a sterling credit may originate in two ways: it may be issued (1) by an English bank upon itself, or (2) by some foreign correspondent of an English bank, or by an outlying branch bank upon a London office. If it is written by an English bank itself we may assume it is to finance an import into Great Britain. But if issued by a bank in some country other than England, it may be, and in fact more frequently is, connected with a movement of merchandise which neither goes to nor comes from England. To make a statement general in form, an export of goods from country B to country C may be settled for by means of a credit on country A issued in country C. The country A *par excellence* of the world has been England. An import by Italy from the United States, or an import by the United States from Italy, or a shipment of goods between almost any two countries in the world, may give rise to a sterling credit which will be issued by a bank in the importing country. This is the fact which lies at the basis of such statements as that the commerce of the world is settled "through" London. Mr. H. K. Brooks says in his "Foreign Exchange Text-Book" (dated 1906) that "probably

[2] This account may serve also as the basis of the drawing of so-called "finance bills," an operation of distinct character. Compare Chapter XII.

ninety per cent. of all letters of credit issued throughout the world are drawn in English money" (page 7). This signifies not that ninety per cent. of the world's commerce is settled through London, but merely that ninety per cent. of the commercial and travelers' letters of credit are for sterling. In the next section we shall begin the serious development of the subject of the bank credit by presenting an illustration of the settlement of an export from Italy to the United States by means of a credit in London.

§ 39. **How merchants make use of commercial credits.**— Let it be supposed a Chicago firm arranges to import a consignment of olive oil from Italy. The price at which the Italian agrees to sell may conceivably be expressed in lire, the money of Italy, or in dollars, the money of the United States, or in pounds sterling, the money of England; not to speak of the possibility of a price in francs or marks, the money of some third country other than England. But the general practice in the case of exports into the United States is for the exporter to name his price in the currency of his own country, and in this illustration we shall assume that the price is set in lire. The American, the importer, explains the proposed transaction to his bank and procures from it a sterling letter of credit in favor of the Italian house, upon terms to be considered presently. Beneath is a specimen of such a letter.

No. G. C. 0000 Capital, $10,000,000.00
£1,000. * * * Surplus, $10,000,000.00

THE HUNDREDTH NATIONAL BANK OF CHICAGO

CHICAGO, July 1st, 1913.

The Italian Olive Oil Export Co.
Genoa, Italy.

Gentlemen:

We hereby authorize you to value on the London Joint City and Midland Bank, Ld., Threadneedle Street, London, at sixty days' sight for any sum or sums not exceeding in all one thou-

sand pounds sterling for account of The American Import Co. for invoice cost of olive oil to be shipped to The American Import Co., Chicago, U. S. A.

The Bills of Lading must be issued to the order of shipper and indorsed in blank.

The Shipment must be completed and the Bill drawn on or before December 31st, 1913, and the advice thereof (in duplicate) sent to The London Joint City and Midland Bank, Ld., London, accompanied by Bill of Lading and abstract of Invoice, on receipt of which Documents the Bills will be duly honored.

The remaining Bills of Lading with certified Invoices and Consular Certificates must be sent by the Bank or Banker negotiating drafts to The New York Customs Brokers Co., New York, U. S. A., for account of The Hundredth National Bank of Chicago, and a certificate to that effect must accompany draft.

We hereby agree with drawers, endorsers and *bona fide* holders of drafts drawn under and in compliance with the terms of this credit that the same shall be duly honored upon presentation at the counter of The London Joint City and Midland Bank, Ld., London.

Drafts under this Credit must bear upon their face the words:

DRAWN UNDER THE HUNDREDTH NATIONAL BANK OF CHICAGO
CREDIT NO. G. C. 0000. DATED JULY 1, 1913.

Respectfully yours,

* * * *

Manager of Foreign Exchange Department.

This instrument may be divided into three parts. (1) In the first, it confers upon the party in whose favor it runs (in this case the party to whom it is addressed), an authority to draw upon a given bank on account of a specified commercial transaction or set of transactions. (2) In the second, it lays down certain requirements regarding the manner of use of the credit so conferred. It prescribes the kind (as documentary) and length of life of the draft or drafts, and makes clear that no draft is to exceed in value the invoice cost [3] of the shipment against

[3] The authorization to "value" on the London Joint City and

which it is drawn. It states the limit beyond which the total of all drafts must not ascend, in this instance £1,000. It demands the presence of certain documents, such as the certified invoice, and provides for the disposition of the documents. It gives the date of expiry of the credit, after which no shipments may be made and drafts drawn under it.[4] (3) The third part of the letter contains the engagement of the writer bank that all drafts drawn under it and in compliance with its terms shall be duly honored. The Italian Olive Oil Export Company is the beneficiary: the American Import Company is the party for whose account the letter is issued. The instructions that the bills of lading are to be made out to the order of the shipper and indorsed by him in blank, have the same significance here as in the case of the documentary trade bill (compare § 31). Sometimes the shipper is directed to have the bills of lading made out to the order of the bank itself, that is, to the order of the bank which writes the letter of credit, this being the institution that takes the credit risks and the one that is in any case to have the claim upon the merchandise as collateral security.

One copy of the bill of lading is to remain attached to the draft until the latter is presented to the drawee bank for acceptance. This copy serves to show the accepting bank that the goods have been shipped and the draft is in proper order. In the case of all drafts drawn on banks the instructions are documents for acceptance, whether these instructions are expressed or implied; and upon ac-

Midland Bank "for invoice cost of olive oil to be shipped" etc., means a power to draw on this bank a draft against each shipment not to exceed the value of the shipment as stated in the "invoice" or bill of goods rendered by the selling to the purchasing merchant.

[4] By making proper arrangements the importer may with the consent of his bank have the credit extended either with respect to the date of its expiration or with respect to the total value of drafts authorized.

cepting this draft the drawee bank will detach the accompanying copy of the bill of lading and all other collateral documents. It will forward these to the bank which wrote the letter of credit. All other copies of the bill of lading will be detached by the banker first buying the draft and forwarded directly to the "New York Customs Brokers Company," this being the fictitious name we have chosen for a house engaged in the business of receiving imported merchandise and clearing it through the American customs house, acting as an agent for interested banks or merchants. Any bank dealing in foreign exchange in a large way will have established relations with such agents at various ports of entry or points of transhipment.

The beneficiary of a credit may exhaust it in one draft or he may make a number of partial shipments and draw a number of separate drafts under it. In the latter case it is his privilege not to surrender the letter of credit to the banker buying the first draft. He needs to keep it to show his authority for subsequent drafts. To protect itself against mistaken or fraudulent over-drawing, the bank which issues the letter requests every banker that buys a draft under it, to make a record of the purchase in a space provided in the letter for that purpose. Such entries will show the progressive exhaustion of the credit. The banker who purchases the final draft is required to take up the letter, cancel it, and attach it to the draft, from which it will be separated by the drawee bank at the time of presentment for acceptance. We need not follow its history as a mere document of record from this point forward.

In our illustration we are assuming that the Italian Olive Oil Export Company ships to the American Import Company a consignment of oil sold at a contract price of 10,000 lire. Taking the bills of lading, insurance certificate, and other documents which originate in this ship-

ment, it prepares a sterling documentary bill. Included among the documents will be the invoice certified by the local American consul, this paper being called for by the letter of credit. It is the Italian Company's privilege to draw upon the London Joint City and Midland Bank, Ltd., against this shipment, a draft for such a number of pounds sterling that the instrument can sell at the exchange rate of the day for the 10,000 lire due on account of this shipment.

What the precise market rate of exchange of the day is, will be declared by the Italian banker who buys the draft. The American bank and the American importer rely upon this banker to name a fair rate. The lower or cheaper this rate, the larger the number of dollars the American merchant will have to pay for his goods in the end. An existing market rate is more or less of an established fact, and through regular channels of information the American parties have a check upon the rate named by the Italian bank. If there were collusion between the Italian merchant and banker it would become manifest, and in any case most foreign banking is conducted on too high a plane to make this common or probable. As a matter of theoretical interest, however, it may be pointed out in passing that the draft-buying banker would profit by quoting a low buying rate, insomuch as the lower the rate the larger the number of pounds sterling payable in London he would obtain for a given outlay of Italian lire, whereas it would make no difference to the merchant who draws the draft how low the rate might be, since he is entitled to draw for enough pounds to net him a predetermined sum of lire. The more pounds drawn for, the larger the number of pounds the American merchant will have to pay for in the end.

The Italian exporting company has a sixty days' sight draft on a London bank to offer. Assume that the rate

for this type of exchange is 25.10 lire per pound. The number of pounds of face value of draft required to yield 10,000 lire to the drawer is calculated simply as follows:

```
25.10)10000.00(398.406
      7530
      ----
      24700
      22590
      -----
       21100
       20080
       -----
        10200
        10040
        -----
          16000
          15060
          -----
```

This shows that a sum of 10,000 is 398.4 times as great as a sum of 25.10, and that if the drawer receives 25.10 lire for each pound of exchange sold he must sell £398.4 to obtain 10,000 lire. By the sale of this bill the Italian Olive Oil Export Company receives payment for its shipment in full in present cash. In ordinary course it will have nothing further to do with the progress of the draft.

§ **40. Banking operations involved and the acceptance account.**—The use of letters of credit necessitates of course a number of banking operations. In discussing these we can do no better than to continue with the illustration already developed. The simpler case, where a bank issues a credit upon itself rather than upon some other institution, will then need no special discussion. Let us begin with

I. *The draft-buying bank.*—The bank in Italy which purchases the sixty days' sight sterling draft of the Italian Olive Oil Export Company may, in ordinary times, make one of two possible dispositions of this instrument. (1)

It may remit it forthwith to its London correspondent for discount and cash credit. (2) Exchange and money market conditions being appropriate, it may choose a course in some respects quite opposed and withhold the draft from discount, with a design to collect in London its full face value at maturity instead of securing an advance of the lesser sum of its discounted present value. The second course of action is called an investment in exchange. Investments in exchange will be the special subject of a later chapter [5] and we shall for the present confine our attention to the case of remittance for immediate discount and cash credit. As soon then as the draft arrives in London, its domicile city, it will be presented by the London correspondent (or perhaps branch) of the Italian bank to the drawee bank for acceptance. Acceptance having been procured, the draft will be discounted at the prevailing rate for the acceptance of a bank in the London money market and the proceeds of the discount will be credited to the deposit carried by the Italian bank with its London correspondent. The correspondent may effect the discount either (1) by selling the draft to any dealer or banker who may desire to purchase it, that is, by selling it in the "open money market" of London, or (2) by buying the draft itself, that is, by itself making an advance of its present value to the Italian bank's account. It may adopt the latter plan if it happens itself to be looking for an opportunity to invest in paper of this character, amount, and length of life. It will in this case pay the same price as could be procured in the open market. Which alternative is selected makes no difference to the remitting bank.[6]

From this point forward the Italian bank has in regular course no further concern in the life of the draft itself.

[5] *See* Chapter XI.

[6] Compare, however, § 62 beneath, on the arrival discount rate.

We have not, however, concluded with the operations imposed on this bank by reason of its purchase of the instrument. Every purchase of sterling exchange made at the bank's home office in Italy means an expenditure of lire there and a gain of pounds in the bank's London deposit.[7] Such a purchase has, therefore, taken by itself the effect of transferring some of the bank's funds from Italy to London. In order to prevent its working capital from being gradually removed to London, the bank in Italy must in the long run manage to sell as much sterling exchange as it buys. For sales of exchange have the effect of bringing in money in Italy and of reducing the London deposit,[8] that is, the effect of making a re-transfer of funds from London to Italy. And so we must conceive of each purchase of a sterling draft, whether drawn under a letter of credit or not, as involving ultimately the countervailing operation of the sale of an equivalent amount of sterling exchange by the purchasing bank in Italy. Our meaning is of course that the total purchases of sterling for a day must be substantially evened up by sales on the same day or very shortly thereafter. Each purchase thus theoretically involves a countervailing sale. Profits come from a difference between the buying and selling rates. (The Italian bank is naturally under an equal necessity of buying as much exchange as it sells, if it designs to prevent the funds in the London balance from flowing back to the home office.) The issue of the letter of credit of our illustration means, then, the purchase of sterling exchange by

[7] In case the Italian bank invests in a long sterling bill, the gain in pounds in London is not eliminated but is merely postponed.

[8] The sale of sight bills on the London correspondent is simply a case of checking on the balance with that correspondent and reduces this balance or deposit in precisely the same way as the drawing of a check by any ordinary depositor with a bank. Regarding the sale of long bills on the correspondent, *see* Chapter XII.

some Italian bank and further in regular course a countervailing sale of sterling exchange by the same bank upon the Italian market for sterling.[9]

II. *The accepting bank.*—In the illustration in hand, the accepting bank is assumed to be the London Joint City and Midland. (1) The first event at this bank connected with the letter of credit will be its receipt from its American correspondent, the Hundredth National of Chicago, of a copy of the letter, or perhaps some other form of advice, which will convey full information as to what may be expected in the way of drafts drawn by the Italian Olive Oil Export Company. (2) The next event will be the presentment of a draft of this company to the London Joint City and Midland Bank for acceptance. The presentment will be made by the correspondent of the Italian draft-buying bank. The American bank has represented that acceptance will be granted.[10] The London bank has made an agreement with the American bank that it will accept drafts authorized by it, within the terms of the "acceptance account." Thus acceptance will take place and the date of maturity of the draft will fall sixty-three days after the date of the acceptance, unless the three days of grace allowed by English law are waived. The days of grace are not waived in usual practice.

The Acceptance Account

(3) In the third place will come the charging of the "acceptance account" of the First National of Chicago. It has already been stated that the grant of an acceptance account is the extension to the grantee of an authority to

[9] This statement is based on the assumption that the Italian bank will desire to have its working balance in London remain at a practically steady figure from day to day. There are times of course when it will desire to expand or contract its London funds.

[10] Regarding the "confirmed letter of credit," *see* § 47 below.

draw long bills upon the grantor (that is, to draw bills for the latter's acceptance) or to authorize others to draw such bills. To charge a draft to this account means to make a record of its acceptance on the date when this event takes place. When the draft is paid at maturity it will be charged off the acceptance account, and the amount paid will be immediately deducted from the cash credit, or balance, of the grantee bank, which is obligated to provide the funds for the discharge of the instrument. At any moment the record will show the total amount of acceptances outstanding, or the total sum of unmatured drafts upon which at one date or another the London bank has become liable as obligor, at the request of, or for the account of, the American bank. Almost always an acceptance account is granted upon two conditions. These are (1) the amount of acceptances outstanding at any one time must not exceed a specified limit, and (2) the amount outstanding at all times must be protected by collateral security. The effect of the first condition is either to prevent the grantee bank from drawing or authorizing long drafts when this action would cause the total of acceptances to ascend above the prescribed limits, or to force it to put up cash to cover any such surplus drafts. The second condition signifies that the grantee bank must have on deposit at all times acceptable securities equal in value to the outstanding acceptances (or perhaps exceeding them in value by a prescribed percentage as margin). The securities are not necessarily physically on deposit with the grantor bank itself, but may be placed in the custody of some agent in America, such as a trust company, chosen to receive them. The bank depositing securities as collateral retains ownership in them and receives the interest or dividends which they pay.

The present writer has reason to believe that acceptance accounts are occasionally granted free from one or both of

the conditions just described. If no formal limit is placed upon the total of acceptances, the meaning is not precisely that unlimited drawings would be tolerated, but rather that the limit is left in the discretion of the grantee bank. Bounds exist but are not expressly defined. The absence of the requirement of collateral would indicate great confidence in the financial strength of the grantee bank. There are, however, probably many banks which never grant an acceptance account without collateral. The reason for the usual demand for this security is readily perceived. The grantor bank becomes unconditionally bound to pay at maturity all the drafts it has accepted. It pays them with the expectation that it will be reimbursed on the day of payment by the grantee bank which has drawn or authorized them. But it is bound to pay without regard to whether this reimbursement is actually forthcoming. If the grantee bank should fail while acceptances were outstanding, the reimbursement would probably not materialize, at least not when due. It would probably be much delayed and then would be for only a certain fraction of the amount owed. The unimpaired cash balance of the failed bank might be insufficient to provide the reimbursement. Under these circumstances the collateral could be seized and sold.

The following statements are of interest as bearing upon the practice respecting collateral of two large London banks. In 1909 or 1910, Sir Felix Schuster, Governor of the Union of London and Smith's Bank, said in an interview given for the United States Monetary Commission: "We do not give what are called open credits, and every acceptance is covered by a deposit of security."[11] A similar assertion was also made with respect to the London Joint

[11] *See* "Interviews on Banking and Currency Systems," U. S. Monetary Commission, p. 37. (This is Senate Document 405, 61st Congress, 2d session.)

Stock Bank by its General Manager, Mr. Charles Gow.[12]

Acceptance of a long bill is in one respect unlike the certification (*i.e.*, acceptance) of a sight bill or check. In the case of certification, the drawee bank assumes a *demand*, instead of a deferred liability for the account of the drawer, and it therefore immediately removes or sequesters from his deposit a sufficient sum to discharge the instrument.

(4) The fourth event at the accepting bank will be the payment of the draft at maturity. (5) The fifth and last will be the immediately ensuing deduction of the amount thus paid, from the American bank's cash balance or deposit. It is the province of the latter institution to fortify its balance for reductions of this character.

III. *The credit-issuing bank.*—The institution which writes the letter of credit (in this illustration, the First National of Chicago), (1) issues this document at the request of the importer and in return for a contract of reimbursement signed by him (compare the next section). (2) It receives advices. That is, as the letter is put to use and the drafts drawn under it become the acceptances of the London correspondent, it receives information as to the amounts and dates of these acceptances. From this it reckons the dates of payment and the deductions that will be made from its London balance, and thus learns its exact requirements for "cover," or for sterling exchange to be purchased in the United States and remitted to London to supply or compensate for these deductions. (3) Next is the collection from the importer of a sum of dollars sufficient to purchase this cover and pay the commissions charged for furnishing the credit. (4) The final step is the actual purchase of the sterling and the remittance of it to the London correspondent for account. This should be

[12] The same, p. 65.

conceived of as a normal final step, but it might of course be omitted if the bank at the time was desirous of reducing its London balance, as a measure of transferring foreign funds home.

§ 41. **The contract for a letter of credit.**—A letter of credit is itself a contract. The person who upon the faith of it purchases drafts drawn under its authority and in accordance with its terms, may maintain an action in his own name for breach of contract against the writer of the letter, in the event that the designated drawee dishonors the drafts whether by non-acceptance or by non-payment. This is true provided the letter was issued for a consideration and provided the drafts were purchased without knowledge of any irregularity or fraud in their origin, and for value. There are certain other minor conditions into which we need not go.

The consideration for which the letter of credit, itself a contract, usually issues is another contract, namely the *contract for a letter of credit* entered into by the importer with the banker who issues the letter. The provisions of this agreement vary in different countries and to a certain extent between banks in a given country. We shall be content to analyze and reproduce one which may be regarded as typical in the United States. Its two chief provisions (1) obligate the merchant to reimburse the bank for the outlays which it will make by reason of having issued the letter, and (2) give the bank a claim upon the imported merchandise as collateral security. Fuller analysis will disclose the following clauses.

1. The person procuring the credit expressly acknowledges his agreement to the terms of the letter of credit itself.

2. He undertakes to reimburse the bank and usually under the following plan. A specified number of days before the maturity of each draft drawn under the letter,

he promises to furnish the bank a sum of money sufficient to purchase at the then prevailing rate of exchange a first class banker's sight bill on London for the number of pounds required to cover or discharge the maturing draft. Sometimes his promise reads either to furnish this sufficient sum of money or else himself to provide the first class banker's draft. The number of days by which this inpayment by the merchant must antedate the maturity of the draft, was, for instance, in Chicago usually fifteen. This statement holds good for sterling credits as issued under conditions preceding the war.

3. The applicant for the credit also agrees to pay the bank a certain commission for its services.

4. He agrees to clauses establishing the bank's interest in the merchandise as collateral (*see* discussion in § 42).

5. The power of the bank to sell the merchandise in case of need is expressly agreed to.

6. The merchant consents to the application of any surplus funds which might arise from such a sale, to the discharge of any other indebtedness which he might owe the bank.

7. The applicant for the credit agrees that the bank is not to be responsible for the character of the merchandise or for the genuineness or correctness of the bill of lading. The point here is that if the foreign merchant ships goods different from those promised, or below the grade contracted for, so that the importer would come to have a right to reject the goods, this shall not affect his obligation to settle with the bank for the drafts which have been drawn upon and accepted by its London correspondent.[13] *Neither of the bankers involved is making a speculation on the sufficiency of the goods.* This is not their business.

[13] Or, in the other case, it shall not affect the obligation to settle for drafts which have been drawn upon and accepted by the bank itself.

The liability of the London banker to pay his acceptance at maturity is not conditioned on the sufficiency of the goods. If it were, by the way, the acceptance would by no means possess the salability on the London money market it has. Likewise the liability of the American bank to reimburse the London bank for its payment of this acceptance is not conditioned upon the sufficiency of the goods. If it were, the London banker would never have been willing to grant the acceptance. Finally the liability of the American importer to reimburse the American banker is not, of course, to be conditioned upon his satisfaction with the merchandise. He would have to pay even if water were fraudulently shipped for say olive oil. If the goods fail to meet the requirements of the contract of sale, the importer will have some sort of action at law (perhaps practically worthless) for reimbursement from the foreign exporter, and this is all he will have. He cannot refuse payment for the goods to the credit-writing banker.

8. The applicant for the credit often agrees to furnish the bank security in addition to its interest in the imported merchandise, if this is demanded.

9. It is in some cases agreed that the bank may revoke the authority conferred by the letter of credit, save that the beneficiary shall always be entitled to use so much of the credit as is necessary to reimburse him for goods shipped and goods started in process of collection or manufacture before he receives notice of the revocation. Revocation is dangerous and unsatisfactory because it is in any event good only against persons who have received notice of the revocation. Any other person buying a draft on the strength of the letter is protected by it despite a revocation. Letters of credit are usually spoken of as being irrevocable.[14]

[14] The specimen form of agreement for a commercial letter of credit given in Margraff's "International Exchange," p. 92, contains

The following is a form of agreement against which the International Banking Corporation issues commercial letters of credit for its clients.

New York, ... 191..

To

THE INTERNATIONAL BANKING CORPORATION,
NEW YORK CITY.

In consideration of your having opened for my (our) account a credit No. ....., dated .....
for .....
with .....
in favor of .....
to be used within ..... months from this date by .....
....., against delivery of documents, viz.:.....
.....
.....

I (we) hereby agree to its terms and bind myself (ourselves) to furnish you not later than ..... days before the maturity of the acceptances under it, with approved bankers' demand bills of exchange, for the same amount payable in London and bearing my (our) endorsement or to pay equivalent thereof in cash at the rate of exchange at which you may be then drawing upon demand on London.

I (we) further agree to pay your commission at the rate of .....% for such part of this credit as shall be used together with all expenses incurred.

It is also understood that you are not to be held responsible in any way for the description or quality of the merchandise shipped, or for the correctness of the documents presented by the parties in whose favor or to whom the credit is issued.

And I (we) hereby recognize and admit the ownership of THE INTERNATIONAL BANKING CORPORATION and its right and the right of its Agents to the possession and disposal of all goods and the proceeds thereof for which THE INTERNATIONAL BANKING CORPORATION may come under any engagements in virtue of this

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a clause authorizing revocation. The same clause also appears in a contract reproduced in Brooks' "Foreign Exchange Text Book," p. 176.

credit as also to the possession of all Bills of Lading for and policies of insurance on such goods until such time as any indebtedness or liability existing as against me (us) in favor of THE INTERNATIONAL BANKING CORPORATION under the said credit or otherwise shall have been fully paid up and discharged and in the event of the said goods being entrusted to me (us) for the purpose of sale or otherwise I (we) hereby consent that the right of THE INTERNATIONAL BANKING CORPORATION or its Agents to repossess themselves of the same or of any proceeds thereof, may be exercised at their discretion.

Any proceeds of said goods coming into the hands of THE INTERNATIONAL BANKING CORPORATION are to be applied against any acceptances under this credit, or against any other indebtedness of me (us) to it, including all expenses incurred and commission of sale and guarantee.

The Marine Insurance to be done by .....

This obligation is to continue in force and be applicable to all transactions, notwithstanding any change in the individuals composing any firm, parties to or concerned in this contract, whether such change shall arise from the acquisition of one or more new partners or from the death or secession of any partner or partners.

.....

.....

DATED, ..., 191..

§ 42. **The banker's legal interest in the merchandise.**— The banker who holds a bill of lading as collateral has a legal interest in the merchandise represented by this document. The general design of this interest is clear enough, but its technical nature and extent are not so clear in all cases. It often amounts to "ownership" or the holding of "title." But at times it is at law referred to merely as a *jus disponendi* or right of disposal or control. Sometimes it appears to be only a "lien." In the specimen "trust receipt" presently to be given, acknowledgment is made of the banker's ownership of the merchandise. Ownership, when gained, is often referred to as a "special prop-

erty" or "special title," because the banker may be divested of it if the merchant who is the real purchaser of the goods performs all his obligations. As a matter of law, the technical extent of the banker's interest depends on the intention of the parties concerned as shown in the words of their agreements and in the circumstances.

For our purposes we shall say that the banker obtains an acknowledged legal interest in the merchandise, and that the main rights involved in the interest are fairly clear in most cases. (1) The banker has a power of sale over the goods, to be exercised upon the condition that the real purchaser fails to perform his obligations. (2) The banker is accountable to the merchant (exporter or importer as the case may be [15]) for any surplus in the proceeds of the sale over what is necessary to discharge in full the debt due him, including costs and charges and interest for delay. In practice such a surplus is rare, because the goods go at forced sale. (3) The banker's claim to the merchandise is superior to that of an attaching creditor of either merchant.[16]

[15] The party to whom the banker is accountable for any surplus is the one who is liable to make up to the banker any deficiency in the proceeds of the sale. This is the one at whose request, and against whose agreement of reimbursement, expressed or implied, the banker has either (1) bought the draft arising in the shipment or (2) become responsible for its payment. Thus the person is the *exporter* in the case where the banker has bought the latter's draft drawn directly on the importer. If the importer dishonors the bill, the exporter is liable for its payment (under the implied contract of a drawer or under the express contract of the letter of hypothecation), but if his goods are sold he will be entitled to receive the surplus proceeds of the sale, if any. The person to receive the same surplus, in the case of the ordinary commercial letter of credit, is the *importer,* who will (because of his express agreement to do so in the ordinary case) have to make up a deficiency in the proceeds when there is a deficiency.

[16] Beneath are a few legal citations upon the banker's interest in the goods.

§ 43. Release of the goods to the importer. The "trust receipt."—As our studies to this point would lead us to expect, it is usual though not universal for the importer to find the bill of lading pertaining to his goods in the

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Where a bill of lading is made out to the order of the seller and indorsed by him in blank, or else made out to the order of a third party, the intention of the parties is the ultimate criterion by which we are to judge whether title passes to the vendee at the time of delivery to the carrier. The presumption from this form of endorsement is that title was withheld from the vendee, but it is generally recognized that this presumption is not conclusive. 2 *Lawyers' Reports* Annotated (NS) 1068–81n, and cases there discussed.

"Where bankers issued mercantile letters of credit to merchants under an agreement that goods purchased by means of the credit, as well as bills of lading of such goods, should be held by the bankers for security, pursuant to which agreement bills of lading were made out to the order of the bankers and sent directly to them by the sellers of the goods, the bankers obtain title to the goods." Moors v. Bird, 77 N. E. 643, 190 Mass. 400 (1906), cited in *4 Decennial Digest '06*, p. 123.

Many cases show that the real consignee does not get title until he pays for the draft to which the bill of lading is attached as collateral, and it has been held that this is true even when the bill of lading is made out direct to the consignee. *17 Decennial Digest '06*, p. 1962.

"A pledgee to whom a bill of lading is given as security gets the legal title to the goods and the right of possession only if such is the intention of the parties, and that intention is open to explanation." The Carlos F. Roses, 177 U. S. 655, as cited in the "American and English Encyclopedia of Law," Second Edition, Supplement, Vol. I, p. 666n.

A Uniform Bills of Lading Act designed for the purpose of systematizing and simplifying the law governing the rights of the several parties concerned in this important instrument of commerce has been passed by a number of states of the American Union. In June, 1911, the list of these states included Massachusetts, New York, Pennsylvania, Maryland, Ohio, Michigan, Illinois and Iowa (*Commercial and Financial Chronicle* for June 24, 1911, p. 1676). The Massachusetts statute, passed March 4, 1910, constitutes Chapter 214 of the Acts of 1910 of that state.

possession of some banker at the place of import. Attention has already been directed to three of the principal plans of settlement which bring about this result. These are settlement by documentary draft of the exporter (1) upon the importer personally, or (2) upon a bank in the importer's city procured by the latter to serve as drawee, or (3) upon a bank in some other city or country appointed by a bank in the importer's city. Under the first plan, the bill of lading will be held by a bank in the importer's city, which is the correspondent and collecting agent of some foreign institution that has bought the exporter's draft, or which has itself purchased the draft through a branch or correspondent. Under the second and third plans, the importer's own bank comes to hold the bill of lading, either because it has authorized and accepted a documentary draft upon itself (as under the second plan), or because it has become responsible for a draft which it has authorized on a bank in another city or country (as under the third plan). In the instance of the third plan, the documents are forwarded immediately to the credit-writing bank, or to its customs house brokers, by the banker who purchases the exporter's draft at its point of origin. To fortify ourselves against possible confusion, let us consider a new illustration of this case.

Suppose the California Importing Company, in arranging to buy goods from a merchant in Hongkong, procures from a San Francisco bank a sterling credit in favor of this merchant. The latter draws on the designated London bank and sells the draft to some banker in Hongkong, who will in usual course send it to London for discount and credit. One of the several copies of the bill of lading will accompany the first of exchange, or first copy of the draft, to London. It will be sent, however, not as collateral but simply as a matter of record to show that the draft is in order and conforms to the instructions of the letter of

credit authorizing it. The other copies of the bill of lading will be sent directly by the draft-purchasing banker to the San Francisco bank that issued the credit. The Hongkong banker is content with the guarantee found in the San Francisco bank's letter of credit, that the London bank will honor the draft. He is willing to release the documents against this, just as he would be against a bank's acceptance of the draft. Thus he does his share in forwarding the plan of settlement, one object of which is to get the bill of lading to San Francisco, the point of import, while keeping it in the control of the risk-taking bank, the credit-writing bank of that city.

Since the draft drawn under any of the plans of settlement at present in hand, is quite likely to be at sixty or ninety days sight, if not for an even longer usance,[17] the importer's goods will commonly arrive some time before the date when he will be contractually bound to make payment. In the case of the bill drawn on the importer himself, this date will be the sixty or ninety days after his acceptance. In the case of the Hongkong draft on the London bank, it will be a stipulated number of days (perhaps 20) before the maturity of the London acceptance. In any event the goods are likely to arrive before the date when the importer is finally bound to make payment. Placing to one side the case of a draft on the importer with documents for *acceptance*, we come now to consider the question of the ways and means open to the importer to obtain his goods at an earlier date than the day of maturity of his contractual debt.

At least four principal arrangements to effect this result may be made between the importer and the banker hold-

[17] "Usance" is a term employed to mean either (1) simply the length of life of any draft as it actually is, or (2) the *customary* length of life of drafts drawn in particular lines of trade, as the trade in silk of the Chinese coast with England or what not.

ing the collateral. I. The banker may merely hand over the documents, the bill of lading and the rest, without any special security, taking from the importer a mere receipt for them. This is the practice at least with some banks where the importer is a person in high repute, especially if a regular customer of the bank itself. In the instance where the local banker holds the documents as the agent of some foreign bank—as is the case when he has received a documentary payment draft for collection from some foreign correspondent—he may deliver the documents to the importer against the latter's mere receipt, even without authorization from the correspondent bank. But if he does this, or makes any arrangement with the importer not contemplated in the documentary instructions, he will act on his own responsibility and will have to make good any losses which the correspondent might chance to suffer on account of this arrangement. With certain firms, nevertheless, some bankers, at least, are willing to take risks of this kind.

II. A second arrangement is the surrender of the documents to the importer in return for the latter's "trust receipt." This instrument is often called a "trust" receipt whether in a technical legal sense what it creates is a real "trust," or an agency or a bailment. Under the second arrangement, we may say the importer obtains possession of the goods as trustee, agent, or bailee, for the bank. Avoiding precise questions of law, the general purport or effect is (1) to permit the importer to obtain the goods and deposit them in a warehouse or place of storage agreeable to the banker, and (2) to keep the banker's claim upon the goods as creditor superior to that of any other creditor the importer may have. To make certain of the latter object, not only must the receipt be drawn in a manner clearly recognizing the banker's prior rights, but the goods must be handled in such a way that they can at all times

be identified. If they were mingled with other merchandise so that their identity should be lost, the special rights of the banker in them would disappear, and his position would become that of a general creditor among other general creditors.

The importer agrees to bring the proceeds of the sale of the goods, or of the sales of them by lot and parcel, to the bank immediately upon their receipt. The writer is informed that the bank does not customarily force the importer to make known the fact of his indebtedness to it, to merchants or others to whom he may make sales. Mr. Franklin Escher states that much difference of opinion exists among foreign exchange men regarding the value of a trust receipt from the standpoint of security.[18] The trust receipt is employed in banking for domestic commerce, but by no means to the same extent as in banking for foreign commerce. The following is a specimen of this instrument.[19]

TRUST RECEIPT

RECEIVED, upon the trust hereinafter mentioned, from the INTERNATIONAL BANKING CORPORATION the following goods and merchandise, the property of said Corporation, specified in the bill of lading as follows:

DATE	VESSEL	MARKS AND NOS.	MERCHANDISE

and in consideration thereof, I (we) hereby agree to hold said goods for the said Corporation, and as its property, with liberty

[18] "Elements of Foreign Exchange" by Franklin Escher, p. 151.

[19] Other examples of trust receipts may be found in Margraff's "International Exchange," p. 96; and in Brooks' "Foreign Exchange Text-book," p. 177; and in Escher's "Elements of Foreign Exchange," p. 149. In the latter book, p. 150, there is also given a specimen "bailee receipt" of the type taken by the Guarantee Trust Company of New York.

to sell the same for its account, but without authority to make any other disposition whatever of the said goods or any part thereof (or the proceeds thereof) either by way of conditional sale, sale on credit, pledge, or in any other manner whatsoever.

In case of sale I (we) further agree to hand the proceeds, as soon as received, to the INTERNATIONAL BANKING CORPORATION to apply against Bill No. ..... amount ..... dated..... drawn by ..... accepted by me (us) payable .... and for the payment of any other indebtedness of mine (ours) to the INTERNATIONAL BANKING CORPORATION.

I (we) agree to keep said goods insured, to their full value, against fire, the sum insured to be payable in case of loss to the INTERNATIONAL BANKING CORPORATION, with the understanding that the Corporation is not to be chargeable with the Storage, Premium or Insurance, or any other expense incurred on said goods.

I (we) further agree that no failure or omission on my (our) part to fully carry out any of the provisions of this or any similar receipt or agreement shall be deemed a waiver by the INTERNATIONAL BANKING CORPORATION of any of its rights or remedies under any of said papers, unless said waiver shall be in writing endorsed hereon and signed by the INTERNATIONAL BANKING CORPORATION.

The INTERNATIONAL BANKING CORPORATION may at any time cancel this trust and take possession of said goods, or of the proceeds of such of the same as may then have been sold, wherever the said goods or proceeds may then be found; and in event of any suspension, or failure, or assignment for benefit of creditors, on my (our) part, or of the non-fulfillment of any obligation, or of the non-payment at maturity of any acceptance made by me (us) under any credit issued by the INTERNATIONAL BANKING CORPORATION on my (our) account or of any indebtedness on my (our) part to said Corporation, all obligations, acceptances, indebtedness and liabilities whatsoever shall thereupon (with or without notice) mature and become due and payable.

.....

Dated .....

III. Under a third plan of handling the goods, the banker may warehouse them in his own name, and arrange for deliveries from time to time to customers of the importer as the latter makes sales. Here the bank take steps to secure the proceeds of the sales. In the end it accounts for these to the importer, and the surplus of their total over the amount due the bank is returned to him and represents his commercial profits.

IV. In the fourth place the importer may obtain possession of, and clear title to, the goods, prior to the date of maturity of his contractual indebtedness, by the simple method of prepayment of this indebtedness. This is precisely what he does in England or another foreign country, when he retires a documentary payment draft under the rebate of discount plan described some time since (in § 35). In the United States we do not at present have a regularized traffic in the retirement of documentary payment drafts, and do not have an open or market retirement rate of discount. One reason is that bills drawn on American importers have not heretofore been numerous. With respect to importations under letters of credit, it is safe to say that at least in the United States and probably everywhere in the world, prepayment of the sums due the banker on the contract for the letter of credit is rare. The importer usually contrives to pay the bank out of the proceeds of the sale of the imported wares themselves, and not before the receipt of these proceeds. However, prepayment could be arranged on the basis of a rebate of interest to be adjusted privately between the banker and the merchant.

§ 44. The bank credit as a means of financing a shipment. —An "advance" is present in a commercial transaction whenever a buyer of goods is allowed to delay payment for a period after their shipment. We speak of the "burden" of the advance as being borne by whatever party it is that gives up present value in return for future payment. Most

frequently this is a money lender who deals either with the buyer or seller. But sometimes the seller himself assumes the burden, by delivering the goods and himself waiting for future payment. The presence of an advance does not depend on the question whether *legal title* passes at the time of the delivery of goods or is withheld until payment is made. Commercially speaking, the disposal of the legal title during the period of the advance is merely a question of security. The seller may shift the burden of the advance to the money-lender or bank by drawing a long bill of exchange on the buyer and discounting it, or by taking the buyer's promissory note and discounting it. Here the money-lender gives up present funds and agrees to await the deferred payment due from the buyer. In many lines of domestic commerce in the United States wholesalers are content with mere book accounts against their regular customers, and in these cases the wholesalers bear the burden of the advances themselves, or if they borrow, do so merely on their own general credit.[20] When the seller is unwilling to give the buyer time it is still possible

[20] Occasionally we hear of the assignment of open accounts as a means of borrowing. Suppose A sells goods on time to B, and neither draws on B nor receives B's note. A has a book claim against B. B is said to have bought from A on open account. Might not A transfer his claim against B for future payment to a banker in return for a reduced present sum? Such a transfer would be an assignment of an open account. The following is quoted from an opinion of the counsel for the Federal Reserve Board. "It appears that certain national banks located in Pennsylvania desiring to accommodate some of their customers, who are coal operators, have purchased written assignments of the open accounts due to such customers from various railroads." In answer to the question whether such written assignments can be discounted by a Federal Reserve Bank, the counsel states, "The assignment of an open account is not negotiable paper and is not eligible for rediscount by a Federal Reserve Bank under the terms of section 13 of the Federal Reserve Act." *See Federal Reserve Bulletin* for May, 1916, p. 227.

for the latter to obtain an advance and shift the burden to a bank by borrowing from such an institution, very likely upon his own promissory note, perhaps with the purchased goods pledged as collateral. Generally speaking, the burden of a commercial advance is shifted around until it rests upon the shoulders of the commercial bank. The functionary that carries this burden is under recent usage said "to finance" the venture which occasions it, or indifferently "to finance" the goods themselves. It is in this sense that we speak of the London banks as financing the American cotton exports, or as financing American cotton.

As the reader must have noted, an advance is present in the olive oil transaction which we have given to illustrate the use of the commercial letter of credit. For the American importer pays for his oil, not when it is sold and shipped, not even when it is physically delivered to him for use or resale, but merely at a set number of days before the maturity of the drafts drawn under the letter of credit. And the importer's delay in payment signifies that some one must be taking the burden of an advance. But this some one is not the Italian or *selling merchant,* because, as we know, he manages to obtain lire for his goods on the date of shipment. It is not the *Italian bank* to which he sold his draft, for this institution causes this bill to be discounted forthwith in London, and following this up by the sale of its own exchange, as already explained, it is thus enabled to make a practically immediate recovery of the lire which it has surrendered to the merchant.[21] The *American bank* makes no advance because it makes no outlay of value until the drafts are about to fall due in London, and it provides for this outlay from funds furnished it by the importing merchant himself. Neither does the London *accepting bank* make the advance, for its outlay is delayed

[21] But if the Italian bank should decide to invest in the shipper's long sterling draft, it would assume the burden of the advance.

until its acceptance matures, and then is made from funds provided by the American bank.

Finally we come to the money lender of London who discounts the acceptance for the correspondent of the Italian bank and holds this paper till maturity. This person or company pays out value at the time of purchase of the acceptance and waits for reimbursement until its maturity or until a prior rediscount. If the bill is transferred one or more times during its life a plural number of money advancers will share the burden of waiting, each usually making interest at some rate for the period during which he has held it. Since the person making the advance is generally outside the group of functionaries more directly concerned with the letter of credit, and is in any case a party who voluntarily selects himself, we say that the burden of the advance rests upon the "open money market" of London. One of the striking features of the system of sterling credits, is its tendency to shift the burden of vast numbers of advances, originating in merchandise traffic in all parts of the world, onto the open money market of London. However, London does not carry this load without aid. It receives much help from the other great money capitals of the world. This help is negative whenever these other capitals withhold long sterling bills from discount in London, or whenever they *invest* in these bills as the saying goes. If the Italian bank of our illustration should invest in the bill of the Italian Olive Oil Export Company, it would assume the rôle of paying money in advance and awaiting a deferred return and no one in London would have an opportunity to play this rôle. The aid received by the London money market is positive if outside capitals remit funds to that market for employment there in the discount of bills. The same cause which will occasion investment in long sterling by outside capitals, will also tend to produce a movement of money funds from them to Lon-

don. This cause will be the existence of lower interest or discount rates abroad than in London, in other words "easier money" abroad than in London.[22]

§ 45. The risk of exchange.—A "risk of exchange" is a chance taken in connection with some mercantile, stock, banking, or similar transaction, which involves settlement by means of exchange, that the profits may be affected by a movement of the rate of exchange. Risks of exchange are taken in domestic as well as foreign commerce but are of more consequence in foreign. When a dealer *speculates* in exchange itself, he places himself in a position where his profits depend wholly upon the rise or fall of the exchange rate, so in general he certainly takes a risk that the price of exchange may move adversely to his interests, just as he has a chance that it will move favorably. But the term risk of exchange is not usually thought of as covering the chances taken in an outright and purposeful speculation in the price of exchange, but only as signifying a chance with respect to exchange, taken as an *incident* to some principal operation which is designed to yield a profit derived from other sources than exchange fluctuations, a profit expected to accrue if the exchange rate should stand still. Exports and imports of merchandise or securities sometimes take place under circumstances involving a risk of exchange, sometimes not. International borrowing by means of drawing long bills on foreign bankers, called "finance bills," and also investment in long bills, always involve a risk of exchange.[23]

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22 Documentary payment bills drawn on English importers call for special comment in this connection because English bankers and money lenders do not discount this type of draft. The foreign bank which buys one of these drafts at its point of origin may nevertheless contrive to shift the burden of the advance to London by drawing its own long draft against its acceptance account and securing the account with the documentary bill as collateral. Compare § 94.

23 But an operator may hedge against a risk. Compare §§ 78, 81, 90.

In the illustration of the import of oil from Italy, there are two risks of exchange, both of which are taken by the American merchant, the importer. For there are two exchange rates either of which may move after he has contracted to buy oil at a fixed price in lire, whose movement will affect his profits, by way of affecting the final cost of the oil to him in dollars. These rates are (1) that for sterling exchange in lire in Italy and (2) that for sterling exchange in dollars in the United States. The first becomes determinate when the Italian merchant "ships and draws" and sells his sterling bill in his country at the rate of the day.

The second is fixed when the American comes, some fifteen days before the maturity of this bill, to deliver to the American bank enough dollars to purchase bankers' sight drafts at the rate of the day for the number of pounds required to discharge the maturing bill. As regards what we might call the *direction* of the risks, (1) the cheaper sterling exchange turns out to be in Italy, the worse for the American, the importer. For the cheaper this exchange is, the greater the quantity of it the Italian merchant will be compelled to draw, in order to obtain the predetermined sum of lire due him, and thus the greater the amount of the sterling acceptance for which the American merchant will have to provide cover. (2) The dearer sterling exchange proves to be in the United States when our importer comes to provide cover, the worse for him because the greater the number of dollars the cover will cost. To illustrate, suppose (1) we take two rates of exchange as dear and cheap in Italy, namely 25.20 and 25.00 lire per pound; and (2) two as dear and cheap in the United States, say, $4.87 and $4.84 per pound. The best combination for our importer would be sterling dear in Italy, therefore at 25.20, and cheap in the United States, therefore at 4.84. Assuming a large shipment of oil, as 100,000 lire worth, and dis-

regarding minor expense, with this combination the import would cost the American $19,206. Thus:

Amount of 60 day sterling drawn by Italian exporter. £3,968.25
(100,000 ÷ 25.20)
Cost of sight sterling to cover this..... $19,206.33
(3,968.21 × 4.84)

The worse combination of rates would be 25.00 and 4.87, and the result this:

Amount of 60 day sterling drawn by Italian exporter. £4,000.00
(100,000 ÷ 25.00)
Cost of sight sterling to cover this..... $19,480.00
(4,000 × 4.87)

There is a difference between the two costs of $274, or about 1½% of either. The total risk to profits then would not be so very great, if the exchange rates concerned were confined within substantially the above stated ranges of fluctuation. Risks of exchange have been enormous at times in history, especially in the cases of paper or silver exchanges against gold, and needless to say, the great war had the effect of vastly increasing them all over the world, due to its breaking down the stability even of gold exchanges.

The risks of exchange in our illustration may be differently distributed, but if this is to be the case the terms of sale and the detail of the method of settlement will have to be altered. We shall assume the necessary alterations merely for the purpose of illustrating further the rules of risk of exchange. It is to be understood the conventional thing is for the Italian to name his price in lire, but suppose he agrees to sell (freight and insurance included) for a designated amount of sterling, say, £3,980, with the understanding that this is payable two months after shipment in the sense that he is to draw under a letter of credit for this sum in sixty-day bills. In this case the quantity of sterling drawn is determined in advance and invariable. Therefore, the American ceases to be concerned in the rate

for sterling exchange in Italy, because this affected him only by affecting the amount of sterling drafts for which he had to provide cover. The consequences of this method of making prices and effecting settlement is (a) the Italian assumes the first of the two risks of exchange that we have been discussing, and the rule is for him, the cheaper the sterling is in Italy the worse for him, this simply because the cheaper sterling is the less the number of lire he finally receives for the fixed sterling price at which he has sold his commodity. (b) The American, however, still carries the second risk of exchange.

Suppose the Italian should agree to sell the oil, delivered in the United States, for a designated sum of dollars. Under any arrangement for his obtaining payment, the consequence would be that he would take whatever risks of exchange might be involved and the American would take none.

§ 46. Advantages of the letter of credit system summarized.—The letter of credit system challenges our admiration. It provides (1) a marvelously convenient *means of payment*, and (2) what is a distinct thing, a *means of financing* international merchandise movements, that is, means of enabling those who move merchandise in international trade, virtually to borrow the funds required for their undertakings at the low rates of interest regularly prevailing in the world's monetary capitals.

The benefits of the system to importers summarized.—(1) An importer can by means of a letter of credit purchase goods from foreign merchants who cannot know or rely upon his own standing; and such purchases can be made where the seller demands cash on shipment. (2) Advance orders, that is, orders for merchandise for future delivery may be given and can with safety be acted upon. (3) The exporter cannot obtain the cash due him, and thus commit the importer to reimburse the credit-issuing bank, without

actually shipping the merchandise. The system of documentary bills provides for this. That is to say, it renders this service unless the exporter should commit fraud in obtaining and preparing the bill of lading and other documents. The possibility of this sort of fraud cannot, of course, be wholly eliminated by any system, but the letter of credit system affords the importer the maximum of protection practically possible, against the collection of cash by the exporter without his performance of his part of the mercantile transaction, namely the shipment of the goods. We must bear in mind that the importer becomes responsible to the credit-issuing bank for the drafts drawn upon it, whether or not the goods were actually shipped or are actually up to grade. (4) Lastly, the system provides the importer with a means of obtaining the advances necessary to move his goods, ultimately from the world's central money markets, and virtually at the comparatively low rates of interest there prevailing. It appears then that the importer who purchases commercial letters of credit from his banker obtains adequate return indeed for the commissions he pays.

Benefits of the system to exporters summarized.—(1) The exporter—in our illustration, the Italian Olive Oil Export Company—is enabled to obtain cash payment in full for his merchandise as soon as he ships it. (2) Furthermore, he enjoys this benefit with an absolute minimum of secondary liability upon the draft which he has drawn and sold. Since this draft is specifically authorized by a bank, the danger of its dishonor is reduced to an almost negligible minimum. On the other hand, when an exporter arranges to obtain payment by drawing upon the private importing house, his secondary liability in case of sale of the draft, is by no means always negligible. Indeed in many cases a draft on an unknown house in a distant country might hardly be salable. That is, a bank might refuse to take the

draft except for collection. Under the letter of credit system neither the exporter nor his bank need to know the standing of the buyer of the merchandise. For the engagement of the bank which writes the letter of credit, to the effect that the drafts drawn under it shall be duly accepted and paid, is not in the slightest degree conditional upon the solvency of the applicant for the letter. (3) Another advantage to the exporter is that, guarded by a letter of credit he may, upon the order of the foreign buyer, safely start to manufacture or collect merchandise for subsequent shipment. For law and custom provide that, once a letter of credit is issued to him, he may rightfully count upon drawing all drafts necessary to reimburse him for such merchandise as he has prepared, or put into process of preparation, to satisfy the order which is supported by the letter of credit. This is true both under (1) the absolutely irrevocable credit and (2) the form which gives the bank a qualified right of revocation. In many agreements for letters of credit it is stated that the bank may revoke the credit "at any time to the extent that it shall not have been acted upon when notice of revocation is received by the user." This merely means that when the beneficiary of the credit receives notice of revocation he shall not thereafter make further commitments looking toward the satisfaction of his buyer's orders; but that he has a right to complete payment or reimbursement for any commitments which he has already made.

§ 47. **The confirmed credit.**—Where the drawee bank and the bank which grants the credit are different institutions, there may arise what is called the "confirmed credit." In the leading illustration which we have been considering these many pages, the Hundreth National Bank of Chicago issues a letter authorizing the beneficiary, the exporter in Italy, to draw upon the London Joint City and Midland Bank. The exporter might, before preparing and shipping

the goods, desire the London Joint City and Midland to ratify the credit. This ratification will give what is known as a confirmed credit. Without confirmation the beneficiary is in the beginning protected merely by the engagement of the bank which has written the letter of credit. In this case the refusal of the drawee bank to accept the draft authorized, would give the holder who had taken the draft on the strength of the letter, an action in contracts in his own name but this action or suit could be instituted only against the bank which wrote the letter of credit. No right of action would exist in favor of this holder against the London bank itself prior to its acceptance of the draft, for this bank has not bound itself in any way to the drawer or the holder. Possibly the London bank might refuse to accept because of some irregularity in the American bank's conduct or arrangement with it, or perhaps because it never had agreed to accept drafts for this bank. These are bad cases, but we are only supposing. Be these things as they may, the exporter sometimes demands a confirmed letter of credit, very likely because the bank to which he plans to sell the drafts demands confirmation. Confirmation is effected by the drawee bank's writing to the beneficiary and engaging with him that it will accept the drafts. For this it receives an extra commission. It writes a contract to accept. The effect of this is to give the holder of the draft a right of action in contracts against the London bank itself, in case the latter should in fact subsequently refuse to accept the instrument. After acceptance, of course, a draft under an unconfirmed letter is just as good as one under a confirmed letter, for after acceptance the drawee bank is fully and unconditionally bound to pay. But the exporter has to prepare and ship his goods before acceptance and thus confirmation is not without significance. One point is that it gives a right of action against a bank which is nearer the exporter's country (in European cases)

and generally better known than the American bank, and adds this right of action to the one already existing against the American bank. A confirmed credit is regarded as an exceptionally secure basis for the manufacture or collection of goods for export.

If the agreement of sale between the merchants calls for a confirmed credit, the importer will ask his bank for the same and pay an extra commission. This bank will then advise the drawee (or London) bank to issue the confirmation and will pay it its commission for this action. In the majority of cases confirmation of the letters of credit of our bankers upon foreign institutions is not demanded. It is obvious that where a bank issues a letter of credit authorizing drafts upon itself there is no point to a separate confirmation.

§ 48. **The "authority to purchase" and "authority to draw."**—The bank credit serves chiefly to give assurance to the exporter (1) that he will be able to sell his draft for cash at the time of shipment, and (2) that there will be no recourse upon him, or demand for reimbursement from him, in the event of the failure of the importer before the whole transaction is settled up. The importer pays the costs of providing this credit and under it the exporter takes a minimum of risk. We come now to what is known to some bankers as an "authority to purchase," which issues at the importer's request and at his expense in commissions, and for the benefit of the exporter, and which is in one respect, though in one respect only, a partial substitute for the bank credit. The plan of settlement through the agency of an authority to purchase is by no means so widely known nor so important as the bank credit, but it resembles the latter in that its design is to give the exporter assurance that he will be able to sell his draft for cash at the time of shipment. The exporter is not empowered to draw on a bank, but draws directly on the importer, and

thus creates what we have heretofore called a mere trade bill. But the importer takes steps to provide an assured or virtually assured cash purchaser for the draft. This purchaser will be a bank of the importer's city, to which the importer is known, and not a bank in the exporter's city. It is true a bank in the exporter's city will consummate the actual purchase, but merely in the capacity of agent for the bank in the importer's city.

From this point forward explanation will best be presented in the form of an illustration. Suppose the San Francisco Tea Company arranges to import 10,000 pounds of a certain grade of tea from an exporter of Canton, a number of shipments to be made within a period of six months, the price being say 25¢, money of the United States, for each pound delivered on the dock at San Francisco. We may call the exporter the Canton Company. Against any shipment the Canton Company will draw upon the San Francisco Tea Company a draft in American dollars. (If the Canton Company's price were such and such a sum of local money of Canton, as would very likely be the case, the draft would be drawn for a sufficient amount in dollars to fetch the required sum of local money, and the risk of exchange would thus rest with the San Francisco company.) In any case the importer first of all goes to a San Francisco exchange bank, which we may call the Bank for Foreign Trade, and asks it to buy the Canton Company's drafts at their point of origin. To induce the bank to render this service the Tea Company (1) agrees to pay a designated commission, and (2) gives the bank a contract known as an "authority to draw." A specimen of the latter appears immediately beneath.

A. P. No. 000
Cabled .....

IN DUPLICATE

AUTHORITY TO DRAW
(Letter of guarantee)

July 1, 1916.

BANK FOR FOREIGN TRADE,
S. F.

Dear Sir:

We beg to inform you that we have authorized The Canton Co. to draw on us with recourse to the extent of $2,500 at 60 days' sight for full invoice cost against the following documents:

Bill of Lading,	Invoice,
Insurance Certificate,	Consular Invoice,

to cover shipment of 10,000 pounds of tea from Canton to S. F.

BILL OF LADING TO ORDER { and indorsed in blank / of Bank for Foreign Trade.

Freight to be prepaid. Marine Insurance by shipper.

We agree, 1. To accept on presentation all bills drawn pursuant hereto.

2. To hold the Bank for Foreign Trade harmless because of any damage to merchandise shipped or deficiency or defect therein or in the documents above described.

3. That the said documents, or the merchandise covered thereby, and insurance shall be held as collateral security for due acceptance and payment of any drafts drawn hereunder, with power to the pledgee to sell in case of non-acceptance or non-payment of the debt to them attached, without notice at public or private sale and after deducting all expenses including commissions connected therewith, the net proceeds to be applied toward payment of said drafts. The receipt by you of other collateral, merchandise or cash, now in your hands, or hereafter deposited, shall not alter

your power to sell the merchandise pledged and the proceeds may be applied to any indebtedness by us to the Bank due or to become due.

4. To pay your commission of ....% for negotiation of drafts hereunder.

This engagement to commence from date hereof and to apply to all Bills drawn within six months.

Please advise by mail.

Yours faithfully,

S. F. TEA CO.,

Per J. Jones, Pres. & Mgr.

The above is our A. P. No. 000. Please do the needful.

Yours very truly,

....

Acct. Mgr.

The foregoing is essentially a contract to accept, with incidental provisions. It first confers upon a designated party the right to draw drafts upon the person signing the contract, up to a certain sum and within a specified period, and second, provides that the drafts must be drawn against shipments of a stated kind of merchandise and must have certain documents attached, and third, binds the person who signs to accept the drafts without regard to the actual arrival of the merchandise or to its character or condition when it appears. In the fourth place, it is agreed that the bank shall have the merchandise as collateral security. The commission to be paid by the importer is also stated.

To transmit to its branch or correspondent in Canton an authority as agent to purchase the described drafts, the importer's bank will commonly forward simply a copy of the authority to draw bearing a notation "please do the needful" or words of similar import. This becomes the "authority to purchase," abbreviated "A. P." The exporter will be notified in a suitable manner of the existence of this authority to purchase for his benefit. In case of necessity the authority may be telegraphed.

The Authority to Purchase is by no means so desirable from the exporter's standpoint as the bank credit, but has nevertheless some advantages. If the Canton Company of our illustration drew upon the San Francisco Tea Company without the support of the authority to purchase issued by the San Francisco bank, it might not be able to sell its draft for cash. For if the San Francisco company should fail in a business way or should for other reason refuse to honor the draft, trouble and expense would be occasioned. The buying banker would have no right of action against the drawee if the latter refused to accept the bill and would have to resort to the merchandise as collateral and probably also to recourse upon the drawer for a balance due after the goods were disposed of at forced sale. Doubtless these evil possibilities would not actually be realized in most cases, but they are frequently of sufficient weight to make a banker at the point of export refuse to go further than to receive the draft for collection, whereas in general the exporter would much prefer to make a sale of the instrument. The simple and single benefit of the authority-to-purchase plan is that the importer induces a banker of his city to whom he is known to purchase the draft at the time and place of its origin. This banker acts primarily because he knows and has confidence in the importer, and secondarily because he is also fortified by the latter's engagement to accept the draft without conditions as to the arrival and sufficiency of the goods. This banker would, in the event of the refusal of the drawee to accept, have three channels of reimbursement open to him for his outlay for the draft and his charges, namely, (1) an action against the drawee on the latter's contract to accept, (2) resort to a sale of the goods, and (3) recourse upon the drawer.[24] The banker will not, however, issue an authority

[24] The contract of the drawee to accept does not operate to destroy

to purchase for an importer where he thinks there is any appreciable danger that the latter will fail to honor the draft.

If we suppose the Canton Company to make a shipment to the value of $500 and to draw a draft for this amount upon the San Francisco Tea Company, the following would be the regular course of events. The Bank for Foreign Trade of San Francisco would through its agent buy the draft in Canton. The instrument would be forwarded immediately to San Francisco and would be presented to the San Francisco Tea Company for acceptance, which would be granted. The goods, upon arrival, might be released to the acceptor under any of the several plans already discussed in § 43.

§ **49. The practical nature of the right of recourse.**—By way of comparison of the bank credit and the authority to purchase, the following may be noted. (1) The ordinary commercial letter of credit is a communication from a bank to the beneficiary and is designed to be shown by this person as a credential to any banker. In regular practice the banker to whom the exporter carries his letter of credit, takes his draft as an outright purchase made on his own account. On the other hand, the authority to purchase is a communication direct to a particular bank, requesting it to buy the draft of the beneficiary, and in this business to act as the agent of the bank sending the authority. (2) Under the letter of credit the beneficiary draws upon a bank, under the authority to purchase upon the importing merchant. Documents are attached to the draft in either case. (3) Unless there is a clause permitting revocation, bankers understand that the commercial letter of credit is irrevocable, whereas they understand that the authority to purchase is revocable at any time prior to the

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the right of recourse upon the drawer in the event of dishonor whether for non-acceptance or for non-payment.

actual purchase of the draft by the foreign bank acting as agent. An occasion for such revocation might be, for instance, the business failure of the importing merchant after he has arranged for the authority to purchase but before the exporter's draft is actually bought.[25] (4) The practical nature of the liability of the exporter to recourse, as drawer of the draft, is very distinct under the authority to purchase as compared with the bank credit.

The trade bill, drawn on the importer instead of a bank, is essentially the same whether supported by an authority to purchase or not. In either case failure of the importer to honor the draft means recourse upon the drawer, unless the latter should enjoy the rare advantage of having the goods sell for enough to discharge the draft. An authorized draft on a bank is distinct in that *the failure of the importer to pay does not involve recourse upon the exporter as drawer.* As has been stated before, the undertaking of a bank which grants a credit, that the draft will be accepted and paid, is not conditioned upon the solvency of the importer or the performance of his obligations, but is absolute after the exporter has drawn his draft in accordance with instructions. The bank granting the credit takes all the risk that the importer will fail, and the exporter is wholly relieved of this risk. Bankers issuing authorities to purchase take pains to make it clear to merchants that the drawer is subject to recourse in the event of the failure of the importer to accept or to pay,[26] and regard this as a leading point of distinction between the authority to purchase and the true bank credit.

Before quitting this subject it is desirable to make clear, however, that the actual legal right of recourse upon the

[25] With regard to the revocation of a commercial letter of credit *see* § 41.

[26] Compare the words "with recourse" in the second line of the main body of the specimen authority to draw given on p. 173.

drawer is present in the case of the draft under a bank credit just as it is in the case of the draft on the importer in person. The truth is, not that the right of recourse is destroyed in the case of the bank credit, but rather that its practical nature is entirely altered. As shown in § 12 of this book, the right of recourse emerges with (1) proper presentment to the drawer, (2) dishonor, and (3) due notice of dishonor (including protest as a necessary element in the case of foreign bills, unless waived). Suppose the Canton Company of our illustration were granted a credit at the importer's request by a San Francisco bank and sold its draft upon this bank to a banker of Canton. If the San Francisco bank should fail or should for other reason dishonor this draft, the banker of Canton could have recourse upon the Canton Company as drawer. The fact that the drawee was a bank, and that it had contracted to accept and pay the draft, has no effect on the right of recourse. The difference between an authorized draft on a bank and a draft on the importer (whether an authority to purchase the latter issues or not) from the standpoint of the exporter as drawer is clear. He is subject to a legal right of recourse in both cases, but in the instance of the bank credit it will require a failure of the drawee *bank* to bring recourse upon him, and the failure of the importer will not bring it. The importer is not the drawee in this instance. In the case of the trade bill the failure of the importing house alone is sufficient to produce recourse. There is a great practical difference in the two risks.[27]

[27] The acceptance by a bank of a long bill drawn upon it by a merchant does not remove the possibility of recourse upon him as drawer in the event of non-payment. The certification (acceptance) of a check by a bank does release the drawer, but this is a distinct case. If A draws a check on a bank payable to B, and if B for his own reasons takes a certification of the check at the bank's counter, the effect is to destroy B's right of recourse upon A as well as upon any indorsers. B has had an opportunity to demand *payment* of

§ 50. **The commissions charged for bank credits.**—Importers who apply for bank credits pay the institutions that issue them commissions for the service thus rendered. Such a commission is a matter of private adjustment between banker and customer and will vary to a considerable degree according to the character of the firm that is accommodated. There are, however, certain average or standard commissions found in ordinary practice, and a table of the charges levied by American bankers for the issue of credits is presented beneath. A noteworthy feature of this class of commission is that it is roughly proportional to the length of life or usance of the drafts that are to be drawn under the credit.

The following may be taken as standard or full commissions charged by American banks to-day:

	For Sterling Credits On London Bankers Per cent.	For Dollar Credits Granted By the Bank on Itself Per cent.
Drafts at sight	¼ to ½	⅛ to ¼
Drafts at 30 days	⅜ to ½	¼ to ⅜
Drafts at 60 days	½ to ¾	⅜ to ½
Drafts at 90 days	⅝ to ⅞	½ to ⅝
Drafts at 4 mos.	¾ to 1	⅝ to ¾
Drafts at 6 mos.	1 to 1⅛	¾ to ⅞

Concessions from these rates are not infrequently made in favor of houses of excellent standing that have large and regular dealings with a bank.

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the instrument, since it is due at sight, and he cannot forego this opportunity and also hold the parties secondarily liable.

If B holds a sight draft upon a private person as distinguished from a bank, and if he accepts some undertaking of that person in place of payment itself of the draft, this undertaking being analogous to certification by a bank, this action by B will release the parties secondarily liable from all further liability in the same manner as certification by a bank.

A London bank's charge for confirming a credit issued against it by an American correspondent will ordinarily run from ½₀ to ⅛ of one per cent. Usually this charge is independent of the length of life of the drafts to be drawn. It will be assessed against the American bank in sterling, and its equivalent in dollars will be collected by the latter institution from the applicant for the confirmed credit.

The question of how much commission, or whether any commission, is to be charged for the issue of an "authority to purchase," is so much a matter of special adjustment between banker and customer that a table of standard commissions for this service can hardly be presented.

The London bank or accepting house which accepts drafts drawn upon it under the authorization of an American correspondent will in all cases demand a compensation in one form or another for this lending of its name. The usual form taken by this compensation is a commission, of perhaps ⅛₀ of 1% for each month of life of each draft accepted. For example, on a 90 days' draft for £10,000, the London acceptor would at this rate charge ³⁄₁₆ of 1% of £10,000, or £18.75 (that is, £18 and 15 shillings). On this same draft the American bank might collect from the applicant for the credit a commission of perhaps ⅝ of 1%, and out of this would pay the London banker's acceptance commission, which would take something less than half of the amount so collected. Commissions are assessed on the drafts drawn and not upon the total aomunt, or maximum limit, of the credit itself. The American banker pays commissions due the London house, in sterling, and collects commissions from the importer in dollars. It is said that sometimes the American and London banks conduct their business in sterling credits on joint account, which signifies that they divide equally the commissions collected from the applicants for such credits.

The fact that the commission charged for drafts drawn

under bank credits is a function of time—that is, varies roughly in proportion to the length of life of the draft, or the time to run between its acceptance and payment—gives this commission a certain superficial resemblance to an interest charge. Thus a charge of ¾% on drafts at ninety days' sight is in a sense a charge at the rate of 3% a year. But these commission rates are not in the least *interest* rates. The institutions collecting them make no advances of money or of money's worth for a deferred return, but as already shown merely "lend their credit" (which means to become liable), whereas a real advance for a deferred return must be present to give rise to what is known as interest and a rate of interest.

The banker who issues a credit becomes unconditionally liable for the payment of the drafts drawn under it. He takes the risk that the importer who has applied for the credit may suffer business failure before the time arrives when he is obligated to reimburse the bank for the drafts drawn. The banker also renders this importer a valuable service. It is for this risk and service that the commission is charged. The reason why the commission is made greater as the length of life of the drafts is increased, is because the longer this life the greater is the length of time during which the importer may postpone reimbursement and the longer is the period during which the banker carries the risk of his solvency. The importer engages to reimburse the bank a fixed number of days prior to the maturity of the acceptances. Obviously if the drafts run at 90 days' sight there will be 30 days more delay open to the importer than if they run at 60 days' sight. The risk carried by the banker is a rough function of time, and it is for this reason commissions are approximately proportional to time.

§ **51. The traveler's letter of credit and the traveler's cheque.**—Persons intending to travel abroad may make arrangements with banks in the home country, or with express

companies or tourist agencies, which will enable them to procure the local money of any foreign country visited. The traveler either pays out home money in advance or gives the bank or institution accommodating him a contract obligating him to make payment later. There are two plans open to him. He may procure what is known as a circular letter of credit, or he may buy so-called traveler's cheques. It is true yet another course may be followed, for he may carry abroad actual home money (preferably standard coin or governmental notes or certificates) and sell it from time to time for the local money of places visited, but this plan is neither so safe nor so convenient as either of those involving the aid of the home banker, and on the average will probably work out to be more costly in home funds for a given amount of foreign money secured.

The traveler's letter of credit is an instrument addressed by a bank as a circular letter to its correspondents scattered throughout the world informing them that the traveler or beneficiary is authorized to draw *sight* drafts up to a certain total amount specified, either (1) upon the writer bank itself or (2) upon some one of its correspondents named in the letter, usually one in London. The letter requests the bankers addressed, on application to do the beneficiary the favor of buying his drafts, that is of exchanging local currency for them at the current rates of exchange, and also conveys the writer bank's engagement that these drafts will be paid by the drawee upon demand. Before the war at least, the vast majority of traveler's letters of credit issued by American banks authorized sterling drafts, or drafts on London banks. As in the case of the commercial letter of credit, drafts as drawn and sold are recorded on an appropriate page, and when the last draft exhausts the credit, the letter will be taken up by the bank cashing it and forwarded along with the draft to be surrendered to the drawee bank. As the traveler who carries a sterling letter

of credit goes about he sells sterling exchange according to his needs to procure local money in the various places he visits. The letter of credit serves as an introduction to and as credentials before the buying banker. The latter will possess specimen signatures of the officers of the bank which has written the letter and judges of the genuineness of the individual letter presented at his counters by an inspection of the signatures which it bears as well as by looking to its general form. The banker will judge of the genuineness of the traveler himself, so to speak, by requiring him to duplicate a specimen signature which he himself was required to place upon the letter at the time of its delivery to him, or else upon a separate letter of identification. The purpose of having the latter document distinct is safety. The traveler is advised to keep the two letters apart. The loss of one alone would not enable the finder, if inclined to forgery, to realize upon the credit. The traveler is given a list of banks, astonishingly numerous, which will buy his drafts. This list is obtained by the institution writing the letter, from its London correspondent, and usually includes all the banks in the four corners of the world which already have established relations with this London bank.[28] Only larger banks and banking houses sell their own letters of credit whether these authorize drafts upon themselves or upon correspondents. Many smaller banks have arrangements with these larger institutions enabling them to issue letters as virtual agents of the latter.

When a traveler pays cash in advance for a sterling credit purchased from an American bank, he is charged for the full face value of the credit at the "posted rates"[29] for sterling exchange, and he also pays a commission which, as stated by one banker, may be "anything or nothing."

[28] Compare Margraff, "International Exchange," p. 73.

[29] Compare § 24, p. 82.

Margraff and Brooks place the prevailing commission at 1%.[30] If, to consider an example, the posted rate is 4.88 and the commission 1%, a circular letter for £1,000 would cost $4,880 plus $48.80 commission, or $4,928.80. Assuming the traveler uses this credit to procure French money in Paris, the number of francs obtainable per pound of draft will depend on the Parisian banker's buying rate for the type of bill the traveler has to sell. The cost of francs in dollars would be computed as follows:

French banker's buying rate (say).....25.00 francs per £.
Cost in dollars of £1 of the credit.....$4.9288
(4928.80 [as shown above] ÷ 1000)
Cost in dollars of the 25.00 francs obtained from £1 .....$4.9288
Cost of 1 franc.....19 7/100 cents.
(4.9288 ÷ 25)
Number of French units obtained for $1...5.07 + francs.
(25.00 ÷ 4.9288)

If the traveler comes home without having exhausted the credit he will obtain dollars for the part that remains by selling it to the bank which wrote the letter of credit at the latter's buying rate of the day for small sterling drafts. Traveler's credits are often issued against the agreement of the beneficiary to furnish funds as required to cover the drafts drawn, both with and without the deposit of collateral security to protect this engagement.[31]

The London bank upon which the traveler's drafts are drawn under a credit issued by an American bank, reimburses itself as fast as it pays these drafts by making immediate deductions from the deposit of the American bank

[30] Margraff, "International Exchange," p. 86; and Brooks, "Foreign Exchange Text Book," p. 140.

[31] For a more detailed discussion of the traveler's credit the reader may see Margraff's "International Exchange," Chapter XII, pp. 73-87.

for the amounts thus paid out plus its commissions for the service. Immediate reimbursement is taken, of course, because the drafts are drawn and paid at sight. An American bank will in regular course be under the necessity of buying and remitting sterling to the credit of its London balance against its sales of travelers' sterling credits. If it conducts this department of its business at a profit, this profit will flow from its charging the buyers of credits more dollars than are required to purchase the cover. The profit will come in part from the high posted rates charged and in part from the commissions.

The Traveler's Cheque.—A comparatively recent and very popular instrument is the "traveler's cheque." This consists in a sight draft drawn not by the traveler himself, as under the plan of the circular letter of credit, but drawn by a bank to the order of the traveler as payee. Arrangements are made for the encashment of this type of check in local money by correspondent banks and also other offices scattered through the leading countries of the world. The following is a specimen.

Two features distinguish this instrument from an ordinary cashier's check or sight bank-draft made payable to the person who purchases it. (1) The traveler's check carries a specimen signature of the payee which he is required to place upon it at the time of purchase. His ability to dupli-

cate this at the time he cashes the check serves to identify him anywhere as the proper payee. When a person cashes an ordinary check or draft payable specially to him, rather than to bearer, he must indorse it. When the payee cashes a traveler's check he really indorses, but the signature of indorsement is in the case of the commoner forms located on the face instead of the back of the instrument, and is called a "counter-signature." (2) In obtaining cash on an ordinary sight draft in a place foreign to the country where the draft was drawn, the draft must be sold at the exchange rate of the day, which is a variable. The traveler's check is cashed in a number of leading countries for fixed and invariable sums of local money indicated plainly on the face of the instrument. Thus the check shown above, which may be encashed for $20 in the United States or Canada, will be encashed in Germany at a vast number of offices for 83.30 marks, irrespective of the position of the rates of exchange in Germany on London or New York, without deduction for commission or other account except for any local stamp tax on the instrument. This statement holds good, of course, only on the assumption of times of peace and the restoration of currency systems to the positions they occupied prior to the war. One who carries traveler's checks takes no risk of exchange with respect to encashment in the several leading countries. In countries where a designated sum is not payable on the check it is to be sold as New York or London exchange, according to which sale is the more favorable.

The banks which issue these instruments make arrangements for their encashment, in general with the same list of banks as that to which they address their circular letters of credit. In addition, however, many hotels, offices of tourist bureaus, and even railway ticket offices and ordinary stores, receive the leading kinds in payment, and sometimes also cash them. The system by means of which

the bank issuing the traveler's check reimburses the bank which cashes it, is necessarily somewhat different in detail from that which prevails in the case of the draft under a circular letter of credit. For, in cashing the latter, a foreign bank merely buys it as so much exchange, and procures compensation for handling it by paying a low enough price for it. Since the bank which cashes the traveler's check must pay out a fixed sum of local money, machinery must be provided by means of which the issuing bank may directly or indirectly place in its hands a suitable commission for his services.

The most important traveler's check sold in the United States to-day is the one issued under the auspices of the American Bankers' Association, which is the one we have given as a specimen. A number of larger banks in the country, however, issue their own traveler's checks, and also dispose of them in part through smaller interior banks as sales agents. The leading express companies likewise put forth this form of exchange, and in fact, as Mr. Brooks tells us, the American Express Company originated the instrument.[32] Under the standard terms these checks are in this country sold for their face value in dollars plus a commission of ½ of 1%, or 50 cents per $100 worth, in some cases with a minimum commission of 50 cents.

Speaking of the technical form of these instruments, the majority of them are real checks drawn by a bank upon another bank in favor of the purchaser, but some are strictly demand promissory notes of the bank of issue, though they are still called "cheques." The precise technical form of the instrument makes absolutely no practical difference in its use. The American Bankers' Association check is drawn by the bank which sells it upon the Bankers' Trust Company of New York, and bears the acceptance of the latter

[32] Brooks, "Foreign Exchange Text Book," p. 153.

institution, this acceptance having been placed upon the instrument in advance when it was a blank form sent to the selling bank.[33]

The bank post remittance is a form utilized chiefly by European immigrants to the United States, as a means of sending money back to the old countries for parents or dependents. The latter are commonly a class of persons who would find difficulty in cashing ordinary bank checks or drafts. Therefore, bankers in this country who sell the form of exchange known as the post remittance, undertake, in return for dollars received from the purchaser, to have a foreign correspondent bank, practically always one located in the country of the designated payee, send the latter the amount of his home money which, considering the banker's charges, is the equivalent of the dollars paid over by the purchaser. The correspondent bank forwards this money to the payee generally by sending him local bank notes through registered and insured mail, or sometimes by sending him a local postal money order. The purchaser of the post remittance makes out an application which commonly bears explanations in some ten or twelve languages, and then pays in his dollars and obtains a receipt to be retained by himself, and also a memorandum, likewise ornamented by the script of many tongues, which he is to mail to his payee abroad. The receipt specifies the address of the payee, the amount of his home money he is to receive, the rate of exchange at which this money is sold the purchaser, the charges for transmission and minor expense, and the total number of dollars charged for the remittance. The memorandum sent by the purchaser to be the payee is in no sense a check or order, but is, technically speaking, simply an advice.

To sell a post remittance in its own right, a bank must

[33] Under the general law of bills, acceptances in advance are valid.

simply have funds with or send funds to the foreign bank which it has directed to forward money to the payee, or else it must have relations with this foreign bank which enable the latter to obtain reimbursement for its expenditures and services in some appropriate manner, as, for instance, by drawing on the American bank's London correspondent a draft which is to be protected by the American bank's advising London to honor it. International money orders, whether issued by the government, by express companies, or by banks, are also a form of foreign exchange.

CHAPTER VIII

FOREIGN MONEY MARKET FACTORS

§ **52. The foreign balance.**—In entering now upon the general subject of practical dealing and rate making, it must be said it will hardly be our undertaking to explain each and every form of operation in exchange known to actual practice. We shall, however, try to make clear the more important or standard types. Such of these as involve exchange investment, borrowing, speculation, or arbitrage will be considered in special chapters. In pursuance of the plan already laid down, attention will be directed in the main to (1) operations conducted by American bankers (2) in sterling exchange (3) under conditions prevailing just prior to the present war. The exchange dealings of Paris or Berlin or other foreign capitals on London, or on one another, differ in many points of detail from the operations of New York on London. Local and peculiar banking customs are to be found in any monetary capital.[1] However, a fairly thorough explanation of the exchange dealings of some one country, as the United States, will disclose at least the fundamental principles which govern in operations the world over.[2]

[1] The Parisian methods, for instance, of quoting long and short exchange on other centers constitute a Chinese puzzle to one unfamiliar with the system. Compare Clare's "A B C of the Foreign Exchanges," pp. 128 *et seq.*

[2] It is not designed to make this book a so-called Arbitrage Manual. Swoboda's arbitrage manual attains a length of 977 pages without becoming, or attempting to become, a treatise on the foreign exchanges that is truly useful to the general reader or ordinary banker or student. [Note continued on page 191.]

If a bank is to carry on a fully rounded out and independent business in exchange on any given foreign country, as say England, it must have with a banking establishment in that country (1) a deposit or balance and (2) an

Note on the Literature of Exchange. The arbitrage manual is a practical foreign banking hand-book which commonly sets forth in much detail the particular banking and money market customs, the methods of handling and pricing bills of exchange, the laws and customs of dealing in bonds and stocks, the methods of handling bullion, the stamp taxes levied by governments upon dealings in bonds, stocks and commercial paper, and like matters, for all of the countries and principal money capitals of the world. The arbitrage manual usually assembles its subject matter country by country, and city by city, and is planned so as to give much of the data required for technical *arbitrage* operations in exchange. The following are some of the important examples of these books: Otto Swoboda, "Die Arbitrage (in Wertpapieren, Wechseln, Münzen, und Edelmetallon)," (Thirteenth Edition, edited by Max Fürst), Berlin, 1909; E. Kauffmann, "Banknotes, Monnaies et Arbitrages," Paris, 1908; Ottomar Haupt, "Arbitrages et Parites" (the latest edition of this book in the possession of the present writer is the eighth), Paris, 1894; H. T. Easton, "Tate's Modern Cambist," Twenty-fourth edition, London, 1908; Henry Deutsch, "Arbitrage," London, 1904; J. H. Norman, "Universal Cambist," London, 1897. (The latter work is unlike the ordinary arbitrage manual, being occupied almost wholly with the author's odd and elaborate [and not over-useful] monetary theory, and containing relatively little information on the practical arbitrage and exchange customs of the leading monetary countries.)

The following books on Foreign Exchange, in the English language, will be found useful reading on practical exchange dealings: Anthony W. Margraff, "International Exchange," Fourth Edition, New York City, 1912; Howard K. Brooks, "Foreign Exchange Textbook," Chicago, 1906; Franklin Escher, "Elements of Foreign Exchange," Second Edition, New York, 1911. The first of these contains the more complete treatment of the subject. The third is a very brief, but nevertheless admirable essay on the exchanges for the American student. Two very good, but rather short books on Foreign Exchange are those by George Clare, "The A B C of the Foreign Exchanges," Fifth Edition reprinted, London, 1911; and "The Money Market Primer and Key to the Exchanges," Second Edition, London, 1903. Another book of a generally similar charac-

acceptance account. Circumscribed and somewhat indirect operations in foreign drafts may, however, be engaged in by a smaller bank without having even a balance abroad, by aid of arrangements which it can make with some larger home institution posessed of complete foreign facilities. A greater American bank not infrequently has more than one balance and more than one acceptance account in London, but for present purposes it will suffice to speak of a single balance and single acceptance account and of the dealings in exchange which may be founded upon these as a basis.[3] A London deposit enables a bank, without the intermediation of any other home institution, to sell sterling sight drafts and cables and to issue both kinds of travelers' exchange payable in sterling, and also to buy all types of sterling exchange, cables and sight and long drafts, and as well to undertake certain minor operations which need not be itemized. We have already paid some attention to the acceptance account (page 135). To have such an account in London enables a bank to issue commercial letters of credit in sterling (involving as these do the authorization of long drafts upon the London correspondent for its ac-

ter is Hartley Withers' "Money Changing," London, 1913. W. F. Spaulding's "Foreign Exchange and Foreign Bills," London, 1915, may also be mentioned. "Foreign Exchange," published by the Financier Company, New York, 1902, is a brief treatise on the subject which contains certain points not readily available elsewhere, but which is so unsystematic as not to be suitable for the ordinary reader. "International Trade and Exchange," N. Y., 1914, by H. G. Brown, a book of the more scholarly type, is devoted in part to the exchanges.

"The Theory of the Foreign Exchanges" by Viscount George J. Goschen, was an early and important essay on the subject which first appeared in 1861 and went through many editions and was translated into the principal foreign languages.

[3] The writer has heard of an instance of an American bank having four London balances, but is unable to say whether or not this should be regarded as entirely exceptional.

ceptance) and also permits it when it desires to draw and sell its own long sterling bills.

All operations in exchange, even those requiring an acceptance account, rest ultimately upon the foreign balance, in the sense that the latter is indispensable for carrying them through, and every completed operation will, whether earlier or later, produce either a debit or a credit to this balance, that is popularly speaking either an outpayment from it or an inpayment into it. We say "completed" operation because one might speak of the issue of a letter of credit as an "operation" and this mere issue of itself will not affect the foreign balance. It is the drawing by the beneficiary under the credit that does this, and conceivably he might not draw or at any rate he might not draw for the full amount authorized. If we think of his drawing as the completion of the operation of issue of a credit, we may generalize and say that every completed operation in exchange alters the foreign balance, and in the following manner: (1) sales of exchange and issues of commercial and travelers' credits deplete the balance and (2) purchases of exchange replenish or augment it.

The time intervening between an exchange transaction at an American bank and the final effect of this transaction on the bank's London balance, may be anything from a few moments or a number of hours, as in the instance of the cable transfer, to several months, as in certain cases involving long bills. For this reason the debits and credits to this balance entered on any given day will be found to originate in a great number of operations initiated on many different dates in a period covering several months prior to that given day. Thus a debit entered to-day may have followed from the sale of a cable transfer to-day or yesterday, or from the sale of a sight draft perhaps six or seven days ago, or even from the issue of a travelers' or commercial credit a number of months back. Or a credit

of to-day may have resulted from the purchase of a cable within a few hours or of a sight draft within a week. Or it might be the consequence of a sale just effected in the London money market of a long sterling bill bought in New York about a week ago and sent over for immediate discount and cash credit. On the other hand it may come from collection at maturity on a 90 days' sight bill purchased in America about one hundred days since and held as an investment for the interest earnings that it would yield.

A foreign balance has as a capital a high rate of turnover. That is, the volume of business sent through it is very large in proportion to the balance itself. Any lack of equivalence between the debit and credit items in this business will therefore tend to cause large fluctuations in the account. In view of the fact that the business impinging upon it on any given day will consist of a large and miscellaneous group of exchange operations undertaken in the near and more remote past by the bank for its customers in America, determined primarily by the commercial and other requirements of these customers, it is manifest it would be a mere accident if the debits and credits of the given day should offset each other. Unless corrected by supplementary or stabilizing operations, this business might on some days cause the balance to be greatly reduced or to disappear and on others to rise to an inordinate sum. But there will be some appropriate figure at which it would best stand, depending upon the quantity and character of the business based upon it, and it will be the bank's policy to keep it as close to this figure as may be practicable. Its normal amount should not be allowed to fall too low lest the business of a day or two might in its oscillations produce a heavily overdrawn condition. Incidental overdrafts in the kind of a balance which we are now discussing are in no sense crimes, but the correspondent charges a relatively high rate of interest upon them and in any case it will be

the bank's program to keep them reduced to the lowest terms. It is sometimes provided in the agreement with the correspondent that a certain *average* daily balance shall be maintained as a minimum. On the other hand, a needless surplus in this deposit above the appropriate working figure is undesirable because it means the depletion of funds available for employment in regular banking at home.[4] Suppose, for illustration, the existence of such an overplus amounting to £10,000. This will have been caused by excess purchases of exchange of a present value on arrival of £10,000, and this exchange will have cost in ordinary times something more than $48,000 of local money of the United States. This sum of dollars will have disappeared from the resources of the bank at home and will have reappeared as sterling in the deposit in London. Its disappearance at home is not the less complete for the time being because of its reappearance in converted form abroad. Though the fund is not lost to the bank, it is in the wrong place and form. To bring it back home it will simply be necessary to sell £10,000 of sterling exchange (sight drafts or cables) in the home market. This sale will restore something over $48,000 to the home resources, depending upon the rate of exchange. Very likely the exchange will be bought by some other bank or banks whose own particular circumstances make them have a need for it.

In practice the surplus of £10,000 in the London deposit would not be allowed to build up, but would rather (if it tended to accumulate) be torn down progressively by sales of exchange on the market as they might be required for this purpose. When its primary business in exchange hap-

[4] Certain conditions may make it advisable to place fairly large funds in loans or discounts in the foreign country, and this through the agency of the correspondent bank, but such funds would not in any event remain in, or be carried in, the balance with the correspondent.

pens to run in channels tending to produce a deficiency in the foreign balance, the bank will, of course, to provide against this, find it necessary to buy exchange in the market to be remitted to the correspondent.

To maintain a policy of stabilizing its foreign balance, the bank must evidently keep as close track as possible of the daily fluctuations in this account. Suppose the natural flow of its business in exchange with its customers, is predestined to produce a heavy net debit to the balance on say July 10th, and assume that the bank is one week removed in mail time from its correspondent, then perfect correction for this fluctuation through a remittance of specially purchased sight bills would require foreknowledge on July 3d and the buying in of the bills on that day. A purchase of cables on a much later date could of course be made to serve, and doubtless much of the demand in the open market for cables is to be accounted for by their emergency utility in providing cover in such cases as this. Clearly the bank needs foreknowledge of the events to transpire in its foreign balance, but what has already been said indicates that this foreknowledge cannot in fact be quite perfect. As for the credits that are about to come into being, practically all, or the vast majority of these, spring from the bank's own remittances of exchange, and with the exception of one class the credits are pretty closely under its control and foreknowledge. The only uncertainty respecting the precise time of the becoming effective of these credits is that attaching to the transmission of mail and telegrams, and this uncertainty is not great in times of peace. The exceptional class of credits are those arising from the remittance of documentary payment trade bills. As we have seen (in § 35) these instruments are paid off at any time between acceptance and maturity according to the pleasure of the drawee. Under the banking customs of England they cannot be discounted on arrival as can other long bills,

and therefore in general the precise time when they will produce their credits cannot be foretold. On the other hand, a schedule, based on experience, of the probable yield day by day from a known lot of these bills can be and is worked out in practice by the banker.

With respect to debits, the time when many of these will become operative is less under the bank's foreknowledge and control. The dates on which drafts will be drawn under travelers' and commercial credits, and consequently the dates when these bills will finally work reductions in the balance, are not determined by the bank but depend, within the limits set by the duration of the credits, upon the convenience of the beneficiaries. In the case, however, of long bills under commercial credits, the bank gains foreknowledge of the dates of ultimate charge to the balance, a considerable period prior to the event, from the advices forwarded by the correspondent telling the dates of acceptance of these bills as they have been presented. A ninety days' sight bill accepted on July 1st will become payable, 93 days thereafter, on October 2d, and the American bank which has granted the credit may well learn of this date as early as July the 7th or shortly thereafter. Sight drafts drawn by the bank itself and sold to its customers or the general public may be out a longer or a shorter time before presentment for payment at the counters of the correspondent, depending upon the promptness and number of transfers made by the persons handling them, and therefore even in their case the time of debiting the balance is not foreknown with absolute precision.

An ordinary depositor with a bank commonly judges of the state of his deposit by his check stubs, though he realizes the record on these stubs is in error at any time when there are outstanding checks. But for an exchange bank it would be out of the question to take the mere record of the dates and amounts of its own remittances and drawings

of exchange and issue of credits, as sufficient evidence of the condition of its foreign deposit. So it prepares from advices received and from other data interpreted in the light of experience, a corrected memorandum account designed to show from day to day in the near future the approximately correct state of its balance as it will appear in fact according to the books of the correspondent. To be on the safe side in making up this memorandum, it should assume maximum periods to transpire before credit items started on their way become effective, and make allowance for the expiry of minimum periods only before debits known to be in process will be charged. It will be on the basis of this memorandum that the bank will make its compensatory purchases or sales of exchange on the open market to stabilize its balance.[5]

To summarize we may formulate what might perhaps be called the *rule of equal sales and purchases.* This runs to the effect that—setting aside circumstances when it is desirable to change the foreign balance itself or alter the foreign loan funds if there are any—the bank must keep its current purchases and sales of exchange at a substantial equality. In interpreting this, the issue of travelers' and commercial credits are, to the extent to which these credits are utilized, to be treated as sales, or as being like sales of exchange. And it is to be kept in mind that sales of long bills on a given date may be offset by purchases of sight drafts or cables at much later dates (depending on the length of life of the long bills), and similarly the purchase of a long bill to be held as an investment will be offset by a subsequent and not by a contemporaneous sale of sight bills or cables.

Under given conditions of commerce and travel, the

[5] When the matter is regarded as of sufficient importance the bank may obtain from its correspondent a telegraphic report as to the amount of its balance at the close of any given day. A very large

clients of an individual bank will have certain exchange requirements which this institution will undertake to meet. If these requirements are such as to produce an excess of debits to its foreign balance, it will be forced into the open market as a purchaser of exchange. But another bank may be driven into this market on the same day as a seller of exchange, by reason of reverse conditions which happen to affect it through its customers. And so some banks buy and some sell. If in the whole country there is an excess of supply of exchange or an excess of demand produced in this way, and this excess persists, a gold import or export will result.[6] The problem of tracing out the detail of this process belongs, however, to a later chapter.

We have pictured the open market business in exchange, namely that taking place among banks and dealers *inter se*, as being determined by the commercial and other needs of the general mercantile and traveling public (and of the immigrants) as these needs make themselves felt through demands made on the individual banks. This picture is essentially correct, but it should be stated that exchange investment, borrowing, speculation and arbitrage also are responsible for a considerable portion of the open market dealings. Even these sources of operation are commercially determined in a fundamental, though more roundabout way. We here think of "commerce" as including international traffic in bonds and stocks as well as in commodities.

§ 53. The services and compensation of correspondent banks.—One bank is said to be a correspondent of another if it is under a standing agreement to make disbursements

bank might desire to receive such reports regularly, expense perhaps being an insufficient objection.

[6] Assuming the gold standard in both countries concerned and assuming a free traffic in gold, practically speaking, assuming conditions of peace.

or take in receipts for the account of this other: or, a correspondent is a bank that acts as agent of another banking house under a regular and continuing arrangement. Assuming this definition, it is not essential that the one called the correspondent should hold a deposit from the other. The present section, however, will discuss only that more important type of correspondent which does hold a deposit, and will be content to cover the subject by examining, as a leading example, the activities of a London bank in its service as correspondent for one in America. Its operations in behalf of the latter may be divided into two main classes: (1) those which result in a disbursement from or debit to this bank's balance, and (2) those which involve an inpayment or credit to it. There follows a fairly detailed list of these operations.

I. OPERATIONS INVOLVING A DEBIT TO THE BALANCE

1. The London bank cashes cable transfers and sight drafts, or checks, drawn upon it directly by the American bank itself. It pays out money or money funds against these to the parties designated, and forthwith deducts the amounts thus disbursed from the drawing bank's balance.
2. It cashes sight drafts drawn upon it by travelers under circular letters of credit issued by the American bank, and also cashes "travelers' cheques" issued by the latter if there are any.
3. It cashes checks drawn upon it by various smaller American banks which have no deposit with it (or any other institution in London) but which have procured authority from the American bank that has the balance, to draw against this balance or for payment out of it. (Compare § 77 to follow.)
4. It makes various remittances by cable or mail on the order of the American bank to designated parties.
5. It accepts, and subsequently pays, the long bills drawn upon it by shippers under the authority of commercial letters of credit issued by the American bank (compare Chapter VII).

The latter's balance is debited at the time of the *payment* of these bills. In case a commercial letter of credit should authorize a sight draft, the London bank would, of course, pay upon presentation without a separate acceptance.

6. It accepts and at maturity pays any long bills drawn upon it by the American bank itself.
7. If the American bank is one of the relatively few larger institutions that make gold shipments, the correspondent may buy gold upon its order in London, pack and forward it, and charge its account for the cost of purchase and the incidental expenses and freight or express (all, of course, in sterling). To enable this operation to be carried through on anything like the usual scale, the American bank's London account would have to be fortified by special remittances of sterling exchange procured in the American market for the express purpose of engineering a gold import. (Compare Chapter XX to follow). Indeed the quantity of gold moved in a single shipment may easily have a value of ten or twenty times the amount in the bank's London balance.
8. The London bank will honor overdrafts if covered by collateral security—at least it is safe to say that the usual and standard arrangement demands that collateral protect all overdrafts. Overdrafts that arise as mere incidents to the business in exchange are in no sense reprehensible, though a chronic state of being overdrawn would be out of the question. The American bank pays interest on the amount overdrawn for the time it is overdrawn.

II. OPERATIONS INVOLVING A CREDIT TO THE BALANCE

1. The London bank credits the balance of the American institution with any remittances made by it by way of cable transfer.
2. It gives credit for sight drafts on London bankers sent over for deposit with it.
3. It also collects and credits checks drawn on other cities.
4. It handles long sterling bills purchased in America and sent over to it. These will be bills (a) of bankers on bankers,

or (b) of merchants on bankers under letters of credit, or (c) of merchants on merchants. The London correspondent procures the acceptance of these bills by the drawees, manages the documents (when present) according to instructions, and credits the remitting bank's balance with any cash proceeds from the instruments at the actual time of the receipt of these proceeds whether from discount or from payment at maturity or prepayment by the drawee.

5. If the American bank makes a gold export from the United States to England, its London correspondent will probably be the agent to take charge of the gold on arrival, and will credit the former's balance with the sterling proceeds of the sale of this specie. This extraordinary credit will be counterbalanced by large and special sales of sterling drafts by the exporting bank on the American side of the water. (Compare No. 7 above.)

If a bank located outside of England has a branch in London, the latter would naturally take on many of or all the functions otherwise exercised by a correspondent, except that it could not so well act as an acceptor of long bills drawn by the parent institution. It should be said a correspondent bank will, in addition to the acts mentioned above, also buy or sell investment securities in the London market for the account of the foreign bank having relations with it.

The compensation of the correspondent bank.—Petty expenses (such as postal and cable charges and stamp taxes) incurred by the correspondent as agent of the American bank, are deducted from the latter's account. But the mere collection of these charges does not afford the correspondent a compensation for its services. This compensation is, however, always provided for. It usually assumes the form of (1) interest earnings and (2) commissions. The interest element in this compensation consists in very small part, or perhaps in no part, of rates of interest paid directly as such by the American bank to the correspondent, for

such payments will be made only in case this bank overdraws its account or secures a straight or direct loan from the correspondent.[7] And in any event, such payments are more in the nature of special remuneration for the London bank's loans than in the nature of general compensation for its ordinary services as a correspondent. The interest element in this general compensation consists in the interest earnings gained by the correspondent from such use in its banking business as it is able to make of the American institution's funds carried on deposit with it. This type of compensation is the same as that secured by any common commercial bank from the employment of the deposits of its ordinary mercantile and other customers.

It should be noted incidentally that, as custodian of the American bank's foreign balance, the London correspondent will have the first chance to discount (or buy) at market rates a large and regular inflow of good grade long sterling bills which have been bought by the American company and forwarded in the course of its regular business in exchange. If it does not care to buy these bills itself, it may sell them on the open London market. In any case the option which it has in this connection is doubtless worth something to it. That is, the business brought to it in this manner probably gives increased opportunity for the remunerative and safe employment of its banking funds. This is similar to the fact that valuable business is brought to the ordinary commercial bank by its depositors.

It is not the general custom of American commercial banks to pay interest on ordinary deposits, and so the interest earnings gained by the banks from these funds are retained wholly in their hands. It is likewise not customary for the greater London commercial banks to pay interest on the checking accounts (or demand deposits) of

[7] The reader will readily distinguish between a direct loan and the acceptance of long bills for the American bank.

merchants and common clients, but they do make arrangements to pay interest upon the working balances (namely checking accounts) of banks which make use of them as correspondents. With this may be compared the practice of New York banks of paying interest on the balances which interior bankers carry with them and use as the basis of a business in New York exchange. A rate of interest paid by a London bank or discount house upon deposits is, in England, called a *deposit allowance rate.*

Between London and American (and presumably other foreign) banking establishments there are in operation two plans of disposing of the question of interest on balances. These are (1) an agreement that the depositing bank shall receive the deposit allowance rate on its entire daily balance, or (2) an alternative agreement that this institution shall maintain with the correspondent a stipulated minimum average daily balance, as perhaps £5,000 or £10,000, upon which no interest is to be received. The latter is called an "interest-free balance." Even under the first of these agreements the London bank doubtless enjoys some gain from the use of the deposited funds, since their interest earnings will almost always exceed the deposit allowance rate. But under the plan of the interest-free balance, the earnings of this fund are reserved in their entirety by the correspondent for itself. This is less liberal to the American banker, but by way of offset there will be coupled with this arrangement a lower or more favorable schedule of commissions to be paid by the latter.

The undertaking to keep on hand a certain average daily interest-free balance, is not an engagement that the deposit shall never fall below the stipulated figure. The balance for any given day is counted as it stands at the close of business on that day. If it falls below the agreed amount on one day, this may be made up by its being sufficiently

in excess on another. A bank operating in exchange can hardly control the exact figure at which its deposit shall stand at the close of business on any one day, but it is entirely feasible for it to control the average for a quarter or half year. If now the average is in fact maintained at a higher level than the required minimum, the deposit allowance rate would be due on the excess for the time during which it is present. Every quarter, or perhaps every half year, any interest which has thus become due will be credited.

Interviews with a number of American bankers indicate that arrangements between our banks and their London correspondents pertaining to the character and amount of the compensation of the latter, vary in detail to no inconsiderable extent. The London banks make no general and open offers of terms under which they are ready to conduct foreign accounts. Each arrangement is a case by itself, and an American banker regards the terms of his London account as strictly private. Greater banks and banks with higher standing receive preferential treatment. It may be said with respect to commissions, there appear to be two leading classes of agreements known to practice. Under one there is put in force a schedule of separate commissions for various and distinct acts or operations performed by the correspondent. The chief commission-bearing acts may be listed as follows:

The acceptance of long bills drawn under commercial letters of credit.
The acceptance of long bills drawn by the American bank itself.
The handling of trade bills including the care of the documents and the procuring of the drawee's acceptance.
The encashment of traveler's drafts under circular letters of credit.

Another class of agreement provides for the payment of a

flat rate of commission on all items going through the balance one way, as for instance on all items credited. This may be called a commission on the turnover. Under this scheme there will be presumably no special commissions for distinct services except for acceptances. The commission on the turnover may range from ¼ of 1% at the highest to say ¼₀ of 1% at the lowest.

A new and distinctive plan of compensation for the correspondent has been brought forward in recent times, and is said to be in operation in some cases. Under this plan the depositing bank pays the correspondent simply an agreed lump sum periodically, as perhaps £200 a year, and goes free of detailed commission charges and receives interest on its entire balance. In proposing this scheme, the London banker say, as it were, "pay us a salary." This plan has the advantages of simplicity, reduction of clerical labor, and freedom from small taxation upon individual operations in exchange. The fixed periodical compensation would depend on the business going through the balance on the average, and would, of course, be open to revision from time to time.

The standard deposit allowance rate on bankers' balances carried in London with the great joint stock banks appears to be 1% under the Bank of England rate.[8] When the Bank of England rate is 3% it will be 2%, and when the Bank rate is 4% it will be 3%, and so on. There will, however, usually be a maximum figure set for the deposit allowance rate, as say 4%, so that when the Bank of England rate under unusual conditions ascends to six or seven per cent. or even higher, the deposit allowance rate will not follow on up above 4%.

The schedule of commissions is likely to involve something on the order of the following figures:

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[8] *See* § 58 below.

Acceptance of bills drawn under commercial letters of credit, 1/16 of 1% per month of life of the bill.

Acceptance of the American bank's own long bills. The same, or a somewhat lower commission.

Cashing of drafts drawn under travelers' letters of credit, 1/40 of 1%.

Confirmation of commercial letter of credit, 1/20 to 1/8 of 1% in general without regard to length of life.

Handling bills with documents attached, 1/40 of 1%.

It is understood these are commissions assessed by the London correspondent against the American bank. The latter will in turn make its own commission charges to such of its customers as are accommodated by the issue of letters of credit or by the collection of drafts. The reason why acceptance commissions are roughly proportional to the length of life of the drafts accepted, was discussed in § 50.

§ **54. The dealers in money in the London market: the joint stock banks.**—The principal lenders of money in London may be grouped in four classes which are peculiar to that city. These are, in the order in which they will be considered: (1) the joint stock banks, (2) the bill brokers and discount houses, (3) the London branch establishments of colonial and foreign banks, and (4) the Bank of England, which may be regarded as constituting a class in itself. In addition to these there are the private banking houses and the so-called "acceptance houses," which if not generally lenders of money are at least factors in the London money market in other ways.[9]

[9] The following references on the London money market may be mentioned: Hartley Withers, "The Meaning of Money," second edition, London, 1909, and "Stocks and Shares," New York, 1910, and "The English Banking System," Publications of the U. S. Monetary Commission, vol. 8, 1910, and "War and Lombard Street," London, 1915; F. Straker, "The Money Market," London, 1904; George Clare, "Money Market Primer" etc., London, 1903; H. T. Easton, "Banks

A few words in passing on the acceptance houses: this term is in London applied to a class of firms which were formerly regular mercantile establishments, but which have since developed a business of granting their acceptances for a commission, without their becoming banks in the full sense of the word. They began merely by accepting long bills of exchange drawn upon themselves against goods purchased abroad by themselves, but came in the course of time to act as acceptors (and necessarily as drawees) of bills drawn against imports made by other English merchants of less consequence or inferior standing. One can see how a business of this character might arise. Suppose a relatively obscure merchant wished to import something from a distant country, but could not induce the exporter to ship it against a draft to be drawn merely upon him in person. Conceivably he might go to a large and well known house at home and ask it to make the import for him on commission. In such a case the exporter would draw upon this well known house. But another plan is possible, and this other plan long ago came into fashion in London. The greater mercantile house tells the lesser merchant, in effect, to make the import himself but to instruct the exporter to draw on it, and it undertakes to accept, and therefore of course to pay, the draft, and to inform the exporter that it will do so. For this service the greater house charges an acceptance commission. It will require the small merchant to put it in funds in time to pay the draft at its maturity. This time will be deferred long enough to permit the arrival and sale of the goods meanwhile, this

and Banking," London, 1904; Charles Duguid, "How to Read the Money Article." All these are descriptive specifically of London. "Interviews on Banking and Currency Systems," Publications of the U. S. Monetary Commission (Senate Document 405, 61st Cong., 2d session) contain much of interest concerning the money market in England and in other countries also.

result being accomplished by having the draft of the exporter drawn at a sufficiently lengthy term or usance to make it possible. Evidently we have here practically the same piece of business as that done by a bank proper when it issues a commercial letter of credit authorizing a draft or drafts on itself, as already described in § 37. The London acceptance houses, originally mercantile establishments, have in general abandoned actual trade and have specialized in acceptances and in certain lines of finance. They once had possession of the acceptance business, and the more recent entry of the regular banks into this field has been something of a blow to them. In later days they have come to act as financial agents of foreign governments and corporations aiding them in the sale of securities in London. The acceptance house is technically distinguishable from a bank in that it pays claims against itself, not in cash over the counter, but by a check drawn on a bank proper. The directors of the Bank of England are selected in great part from among the members of the accepting firms.

The London "joint stock banks" are given this name because they are incorporated, but they are put in a separate class not for this reason, but because the business which they transact is of a distinct character. The classification is a matter of the function of these establishments and not of their form. At present writing (1919), there are three discount houses which are joint stock companies as well as the great banks. The business of the London joint stock banks is generally, though not wholly, similar to that of the regular commercial banks of America. On the following page is given a balance sheet of the London County and Westminster Bank, Ltd., for June 30, 1913. This shows the condition of one of the largest of the London banks on a date not long before the outbreak of the war.

LONDON COUNTY AND WESTMINSTER BANK, LD.[10]

Balance Sheet—June 30, 1913

Liabilities	£	Assets	£
(1) Capital—700,000 shares of £20 each, £5 paid	3,500,000	Cash	
(2) Reserve	4,000,000	(9) —In hand and at Bank of England	9,628,249
(3) Current and deposit accounts	81,442,141	(10) —At call and short notice	11,147,811
(4) Circular notes, letters of credit, etc., etc., including provisions for contingencies	3,952,041	(11) Bills discounted	18,340,178
(5) Acceptances for customers	7,158,931	(12) Investments*	9,152,171
(6) Endorsements on bills negotiated	627,070	(13) Advances to customers and other accounts	43,304,996
(7) Rebate on bills not due	94,741	(14) Liability of customers for acceptances, as per contra	7,158,931
(8) Profit and loss account	304,110	(15) Bills negotiated as per contra	627,070
		(16) Bank and other premises	1,719,625
	101,079,034		101,079,034

As a means of explaining the nature of the business of a typical joint stock bank, we may consider the items in this balance sheet *seriatim*. It will be necessary to assume the reader possesses a general familiarity with the meaning of bank statements.

Items on the Liabilities Side

(1) *Capital—700,000 shares of £20 each, £5 paid.* This is the same item as "capital" or "capital stock" in the statement of an American bank. But in practically all instances the share capitals of the London joint stock banks are only partly paid up. This is English custom for banks and is in distinct contrast with custom and with legal requirements in the United States. Thus the London County and Westminster has a subscribed capital stock of £14,000,000 par value (700,000 x £20), but each subscriber paid in only 25% of the par of his shares, so that the

[10] Statement slightly abridged from one to be found in the London *Economist*, Banking Number, Oct. 18, 1913, p. 814.

* Given in the original statement in four separate classes.

paid-up capital is, as indicated, £3,500,000. The unpaid balance, £11,500,000 in this instance, may be called from the shareholders if this action should become necessary to satisfy the claims of the creditors of the bank. This assessable balance due on the subscribed capital is the last line of defense which a joint stock bank has against failure to pay its creditors in full.

In the case of many of the banks, the unpaid balance is divided into two parts referred to respectively as "callable" and "reserved." To explain this, there are two grand purposes for which a company might demand money from the shareholders on account of the unpaid balance. One purpose is the development or expansion of the business, the other the payment of the claims of creditors of the company, which the assets do not suffice to meet. The entire unpaid balance on the shares is always assessable for the latter purpose. This is determined by the legal principles governing the liability of corporation shareholders. Where the division of the unpaid balance into "callable" and "reserved" is in effect, the part (or it might be the whole) entitled "reserved" may not be called for the mere purpose of business development, being reserved for the sole object of paying creditors in case of need; while the part known as "callable" is still assessable for general business purposes, provided of course proper authority within the corporation determines upon such an assessment.

(2) *Reserve* is the item known as "surplus" in the United States. The Bank of England has its own peculiar name for this account, namely, the "Rest."

(3) *Current and deposit accounts.*—The deposit liabilities of English banks, using the word deposit in the broader sense more common in America, are separable into two chief sub-divisions: (a) "current accounts" and (b) "de-

posit accounts." The first are deposits payable on demand and subject to check, and are commonly non-interest-bearing. They are the English equivalent of our American commercial deposits or checking accounts. The second, often referred to as "deposits at notice," are accounts which the customer may withdraw only after giving notice (of a week or two), and upon which the bank pays interest, at a deposit allowance rate. The American savings deposit has some similarity to the London deposit at notice, but the notice which the American bank may require is usually for a much longer period—as sixty days perhaps—and the rate of interest is higher here. Also the London deposits at notice are not invested in the same way as our savings deposits.

(4) *Circular notes, letters of credit, etc.*—This account contains miscellaneous liabilities, but the heading "circular notes" and "letters of credit" covers travelers' forms of exchange sold by the bank and at present outstanding.

(5) *Acceptances for customers.*—This item shows the amount of long bills of exchange which have been drawn upon this bank by arrangement with it, and which have been accepted by it and are now outstanding and unpaid. The drawers of these bills may be either merchants or other banks. Drafts under commercial letters of credit come under this account. The act of acceptance makes the London County and Westminster Bank unconditionally liable to pay the bills at maturity, and hence the liability so created is entered in its balance sheet, though it is counterbalanced by the equal liability of customers to provide funds for the payment of the acceptances at maturity—*see* item number 14 beneath—protected by collateral security.

(6) *Endorsements on bills negotiated.*—This item shows the conditional or secondary liability (compare § 12 of

this book) of the bank as indorser of any bills which it has indorsed and negotiated, and which are as yet unpaid and unextinguished. This item is counterbalanced by number 15 below. Payment of such a bill will remove it from both account 6 and account 15.

(7) *Rebate on bills not due.*—The second largest item of assets shown in the balance sheet now before us, number 11, is "bills discounted" . . . £18,340,178. This shows that the bank now holds long bills which have a total face or maturity value of this amount. As an asset strictly valued, these bills are worth to the bank at the present moment, not the sum of their full face values, but only the sum of their present values. Items 7 and 11 taken together show the following facts: the bank now holds long bills of a value at their maturities of £18,340,178, the total amount of discount on all these to be deducted to find their present values being £94,741, so that the present value of the entire lot of bills is £18,245,437. This state of facts might be exhibited by the entry of the last given figure as a single item of assets, but more information is conveyed by giving the two items. Item number 7 of the liabilities exists only to be set off against, or subtracted from, item number 11 of the assets.

(8) *Profit and loss account.*—This is the same as "undivided profits," American usage. Items of liability numbers 1, 2, and 8, taken together constitute the total of capital, surplus, and undivided profits and represent the shareholders' "equity" or the total net business capital of the proprietors of this bank employed in its business.

Items on the Assets Side

The chief items of assets, numbers 9 to 13, appear practically in the order of their "quickness," running from the

most liquid to the less liquid. They have been likened to successive lines of defense to be fallen back upon in case of unexpected demands from the creditors of the bank.

(9) *Cash in hand and at the Bank of England.*—This is the American "reserve" or "cash reserve." "Cash at the Bank of England" does not mean a special deposit of actual gold kept in the strong vaults of this institution for safety, but means merely an ordinary deposit claim. The conception of a reserve consisting in a deposit credit with some central bank is now too familiar to require comment. At present writing there is but one London bank whose public reports state separately the amount of cash in its own vaults and the amount with the Bank of England. This is the Union of London and Smith's Bank.

(10) *Cash at call and short notice.*—"Cash at call" signifies what are styled call loans in America. In London they also bear the name of "day to day" loans. They are characterized by the right of either borrower or lender to terminate the loan on (substantially) a day's notice. In New York call loans are made almost wholly to dealers in stocks, in London almost wholly to dealers in bills of exchange (compare §§ 55 and 59 below). Money placed by the joint stock banks with the people of the London stock market is loaned generally for a period of two weeks, this being the time which elapses between the so-called settlements on the London Stock Exchange. The New York Stock Exchange settles daily. The joint stock bank's loans to bill brokers are made largely against bills as collateral, but also against bonds and stocks. Loans to stock dealers are against bonds and stocks as collateral both in London and New York.

(11) *Bills discounted.*—This account has been spoken of already in connection with item of liabilities number 7.

The *greater* London banks do not make a practice of reselling bills which they have once bought. In other words they do not rediscount.[11] Therefore in practice it is not so much because the bills on hand are marketable for cash that they are to be regarded as a liquid asset, but it is rather because there is a certain portion of them falling due or maturing each day. If the bank feels the need of realizing cash for its reserve from the resources in the portfolio of bills, it may do so by refraining from putting out into bills again, the money which it collects from day to day from the maturing bills.

(12) *Investments,* consisting regularly of high grade, readily marketable, interest-bearing securities, require no special comment here.

(13) *Advances to customers and other accounts.*—This entry covers the great mass of advances or loans made by the bank for various periods on personal and collateral security, primarily to its own customers direct. It includes the main body of advances other than those made by way of the purchase of bills of exchange and the placing of short term money already accounted for. This is the greatest item among the bank's resources, and interest from this account is the largest element in the bank's earnings.

(14) *Liability of customers for acceptances.*—The fifth account showed that the bank was, at the time of this statement, liable as acceptor on £7,158,931 of long bills. But these instruments were all accepted at the request of "customers," and the latter are in all cases under contract to provide the bank with the funds required to discharge them.

[11] Compare pp. 218, n. 15, and 242.

The obligation of these customers thus to pay over £7,158,-931 is a resource of the bank and is here entered as such. "Customers" will in this case include other banks. In fact the parties that have made arrangements for acceptances may, according to the nature of their relation to the bank, be divided into three classes. (1) There are English importers who have induced the bank to authorize drafts upon itself to be drawn by merchants who are to make exports to them (compare § 37). (2) Then there are banks foreign to England which have authorized exporters in various parts of the world to draw on this London bank at the time of making their shipments. Such shipments are not necessarily to England (compare § 38). The banks in question have issued their sterling letters of credit and are obligated to supply the London bank with the funds necessary to pay the bills it has accepted under these letters. The importing merchants who applied for the letters are in turn liable to reimburse the banks which wrote them (compare § 41). (3) Finally, there will be foreign banks which have themselves drawn long bills on the London bank and are likewise liable to it for the funds to discharge them at maturity. We first encountered these bills—bankers' sixty and ninety days' drafts—in the foreign exchange market reports given in § 23. We shall learn more of them later.

(15) *Bills negotiated as per contra.*—This entry was explained in connection with number 6.

(16) *Bank and other premises.*—This entry shows the appraised or book value of the real estate holdings of the bank.

The principal lines of business followed by the London joint stock bank may now be summarized:

(1) It receives deposits on demand and at short notice.
(2) It makes the following chief types of loans or advances:
    (a) It makes loans on call and for short periods to bill brokers and discount houses.
    (b) It makes advances by discounting long bills, bought partly from bill brokers, partly from foreign banks which use it as correspondent, partly from its own mercantile customers.
    (c) It makes loans, usually for periods of a fortnight, to dealers in the London stock exchange.
    (d) It makes loans direct to its own mercantile customers or depositors.
    (e) It places loans at times in foreign money capitals through an agent or correspondent (compare § 83 below).
(3) It accepts a great many long bills of exchange drawn upon itself, thus "lending its credit."
(4) It serves as correspondent for foreign banks dealing in exchange.

The foregoing list does not include what the British would call dealings in "foreign exchange," for by this phrase they would mean dealings in bills drawn (or at least negotiated) in England that are payable in some country foreign to England. The joint stock banks have much to do with bills of foreign origin payable in sterling in England, but the English banker does not ordinarily think of these bills as being foreign exchange, for the reason that when he comes into contact with them they are already in England and are payable there. Until recent times the joint stock banks have had very little concern with what the Londoner would speak of as foreign exchange, but they are now beginning to take it up. Two of them (as far as discovered by the writer), the London County and Westminster and the Lon-

don City and Midland, established regular foreign departments a few years since,[12] and the same two have more recently made arrangements to open branches in Spain.[13]

§ **55. The bill brokers and discount houses.**—In London there are two classes of dealers in bills whose business activities are confined almost exclusively to operations in this type of paper. These are (1) the bill brokers and (2) the discount houses.

The original or so-called "running" broker, now, according to Mr. Hartley Withers,[14] comparatively rare in London, was a functionary who searched out those with bills or notes for sale and those ready to buy them, carried the instruments from seller to buyer, and performed this service for a commission. But in the British metropolis the dominant type of bill broker of the present day actually purchases and resells the paper which passes through his hands. He buys sterling bills from local mercantile drawers, and from foreign banks with offices or correspondents in London, and from such other banking houses as make a practice of selling bills which they have once bought. Some of the larger banks make it a rule never to sell a bill which has come into their own ownership—though they sell as agents of foreign banks. They wait till maturity for realization upon it, and appear to regard the maintenance of this policy as a sign of superior strength and a point of pride.[15] These banks, however, buy bills from the broker

12 Hartley Withers, "The English Banking System," already cited, p. 40.

13 London *Economist*, for February 10, 1917, p. 222.

14 Compare his "Meaning of Money," pp. 139–141.

15 Sir Felix Shuster, Governor of the Union of London and Smith's Bank, made the following statement (in the year 1908 or 1909), "As far as I am aware this bank has never as long as it has been in existence had one penny from the Bank of England, whether by way of an advance or by way of a rediscounted bill. We do not rediscount our bills in the market either, so every trans-

freely and also lend him much money for his operations, so they are in constant, though one-sided, business relations with him.

The rate of discount named by the bill brokers as the basis of their purchases of any given class of bills is known as the "market rate" for this class. When banks buy bills from their ordinary customers, private persons or foreign banks which have them as correspondents, they likewise exact this same market rate. But when they buy the same instruments from the brokers, as distinguished from ordinary customers, they shade the market rate by about ⅛ or ¼%. The broker lives upon this special concession. We shall see presently why it is open to him.

The following table shows how the profit made by the broker on an individual bill may be calculated.

THE BROKER'S PROFIT ON A TURNOVER OF A £1,000 BILL

Suppose a broker purchases a £1,000 bill with 93 days to run, on the basis of a discount rate of 3½% per annum, and sells this bill on the same day to a bank at a discount rate of 3⅜% per annum. The following account results:

Broker's purchase price of bill

One year's discount	= 3½% of £1,000
	= £35
93 days' discount	= $\frac{93}{365} \times$ £35
	= £8.918

(For the sake of convenience we figure in pounds and decimals of pounds and omit shillings and pence.)

Price paid by broker for bill	= £1,000 — £8.918
	= 991.082

action we enter into we have to see through to the very end." "Interviews," etc., as already cited, p. 55. A practically identical declaration was also made for the London Joint Stock Bank by its general manager. *Ibid.*, p. 71.

Broker's selling price of bill

One year's discount	= 3⅜% of £1,000
	= £ 33.75
93 days' discount	= $\frac{93}{365} \times$ £33.75
	= £8.599
Selling price to bank	= £1,000 — £8.599
	= 991.401

Broker's profit

Selling price	991.401
Buying price	991.082
	.319

£.319 is about 6s. 5d. This profit figures at about the rate of 1/32 of 1% of the broker's temporary investment in the bill.

The broker makes in this case a profit of about 1/32 of 1% on the turnover. If he could perform this operation 300 times a year with the capital of £991, he would make 300 times 1/32 or only 9⅜% per annum for his capital and his own trouble and risk. This capital is itself largely borrowed from the joint stock banks on call, at an average interest cost under the conditions of this example of say 2½% per annum. The broker's net interest gain is then about 6⅞% per annum. These figures are not advanced so much as giving an accurate representation of the actual average gains of brokers in London, as by way of showing the manner in which they may be calculated.

When a broker buys a bill and resells it to a bank, he does not usually place his indorsement upon the instrument, but he does nevertheless in common practice guarantee that the bill will be paid at maturity. This guarantee is effected by his giving the bank a continuing contract which covers during its life all bills rediscounted with the institution. The broker may sell bills to the same bank

from which he borrows funds to employ in the bill business. As security for any of his loans from a bank he deposits collateral consisting of first class bills or of securities of the best grade, payable to bearer, such as consols, London corporation bonds, Indian railway bonds, etc. These securities are of the type called "floaters" in London. With respect to the bills deposited as collateral, they make up part of the broker's stock on hand, and if he desires to sell any individual one of these bills he may obtain it by substituting other acceptable collateral or by paying off a sufficient proportion of the loan to release it.

Since the bill brokers operate with capital borrowed from the banks and sell bills to the banks under a specially favorable rate, and thus make a middleman's profit, the question arises why the banks do not take steps to eliminate the brokers. In fact, so far from being crowded out, the brokers enjoy "nearly the whole of the better class of business in bills."[16] The explanation is that the banks usually have a greater supply of funds than they can lend to their own direct customers or depositors, and they find it advantageous to place some of the surplus in bills bought from the brokers. The latter spend their time in becoming specialists on the personal credit of the various individuals and firms that offer bills for sale in the market, and go about gathering the instruments up, and sell them with a guarantee. One of their greatest services to the bank is that they enable it to purchase selected maturities and thus to obtain a proper marshaling with respect to due dates, of the whole body of bills it holds, or its so-called portfolio of bills. Special circumstances apart, the ideal portfolio will contain a body of bills maturing day by day in substantially equal portions, a lot falling due to-day, an equal one to-morrow, and so forward. Under this ar-

[16] Clare, "Money Market Primer," p. 141.

rangement a fraction of the fund invested in bills will be released each day: no special need for cash appearing on the day, it may be invested again in new bills. But the nature of the bank's business makes it highly desirable that these daily releasings of funds should actually take place. Now the banker may discount many bills for his own depositors. If these do not happen to be marshalled in exactly the right manner with respect to maturities, the broker can furnish bills with such due dates that when they are added to those already on hand the whole portfolio will mature in proper sequence. The broker deals with so many banks that he is practically able to select from his stock bills of the character desired by the particular banking customer. It is doubtful whether the banks could supplant the broker with advantage. At any rate they do not do so. He works on capital largely borrowed from them and lives on a differential granted by them, but he appears to return full value in services for these concessions.[17]

The *discount house* differs from the bill broker or bill broking firm in degree rather than in kind. It is a house with a larger capital which makes a practice of holding a greater proportion of bills till their maturities. To do this it must employ more capital, in proportion to the number of bills handled, than does the broker. Historically the discount houses are outgrowths of the bill broking firms. Most are partnerships, but there are now (1919) three that are incorporated, or "joint-stocked" as the English say. The funds employed by the discount house consist (1) of its own capital, (2) of interest-bearing deposits on demand, (3) of interest-bearing deposits at notice, and (4) of monies borrowed from the joint stock banks at call and short notice. It is a little though not altogether like a savings bank which employs its depositors' funds in the purchase

[17] Compare Straker, "The Money Market," pp. 107–8.

of bills instead of the purchase of mortgages and long term securities. The rate of interest allowed on deposits at notice is higher than upon those payable on demand.

The following table, from a report of some years back of the National Discount Company, will throw light upon the operations of a discount house.

MARGINS OF DISCOUNT IN DISCOUNT COMPANY'S FAVOR[18]

The margins in our favor this half-year, compared with those of the corresponding six months in 1909, are as follows:

	1910			1909		
	£	s	d	£	s	d
Actual discount	3	1	11	2	0	5
Actual deposit interest	2	14	7	1	16	7
Difference		7	4		3	10
Actual yield on investments	3	9	11	3	9	6
Deposit interest	2	14	7	1	16	7
Difference		15	4	1	12	11
Actual loan interest	4	3	0	3	0	5
Deposit interest	2	14	7	1	16	7
Difference	1	8	5	1	3	10

The first entry "actual discount . . . £3 1s. 11d." shows the average rate of discount charged by the company in its purchase of bills during the first half of the year 1910, namely the rate of "three pounds, one shilling and eleven pence per cent." This is to the American reader an un-

[18] From the half-yearly report of the National Discount Company, Ld., July 15, 1910, published in the London *Economist*, July 16, 1910, p. 127.

familiar method of expressing a percentage rate. It signifies the number of pounds, shillings and pence to the 100 pounds. If we were to adopt a corresponding usage, we would speak of a rate of "three dollars and twenty-five cents per cent" where we now say 3¼%. That is, "three dollars and twenty-five cents per cent" would mean 3¼ dollars to the 100 dollars, or simply 3¼%. £3 1s. 11d. is, written decimally, £3.096, and "£3 1s. 11d. per cent" is, expressed in the ordinary fashion, 3.096% or $3^{96}/_{1000}$%. The Englishman will on occasion write a rate of 3½% as "£3 10s. per cent," *i.e.*, three and one-half pounds to the 100 pounds. To convert any rate expressed in pounds, shillings and pence to one formulated in the usual manner, it is merely necessary to reduce the pounds, shillings and pence to pounds and a decimal fraction of a pound.

The table entitled "margins of discount" falls into three parts. The first part shows that in the earlier half of 1910 the company earned an average of £3 1s. 11d. of discount per annum on each £100 of capital in the bill business, and that so much of this capital as was obtained from depositors cost on the average £2 14s. 7d. of interest per annum per £100. The "difference" of 7s. 4d. is the company's margin in this department of its business.[19] It amounts to a little more than ⅓ of 1%. The second part of the table shows that funds employed by the company in investments, or placed by it in interest-bearing securities other than bills or notes, yielded £3 9s. 11d. per cent, and thus a margin of 15s. 4d. or one a little better than ¾ of 1%. From the third part of the table we see that direct loans afford a margin of £1 8s. 5d. per cent or 1.42%. It appears the discount of bills is the least remunerative of the three departments of the business, nevertheless far the greater

[19] A slight error is involved in subtracting an interest rate from a discount rate, but it is in the case of such low rates as these practically negligible.

portion of the capital controlled by the company is invested in them. The reason for the preference for bills is that they make the most liquid assets to carry against deposits on demand and at short notice.

Beneath is a specimen balance sheet of a discount company.

BALANCE SHEET

UNION DISCOUNT COMPANY, Ld.[20]

June 30, 1912.

Liabilities	£	*Assets*	£
Capital—150,000 £10 shares, £5 paid up	750,000	Cash at bankers	882,450
Reserve fund	650,000	British Government, Indian Government, and other securities	2,853,318
Provident reserve fund	87,507	Loans on securities at call and short date and other accounts	1,606,477
Loans and deposits, including provision for contingencies ..	18,326,937	Bills discounted, etc.	21,579,852
Bills rediscounted ...	6,973,184	Sundry debt balances	36,048
Rebate on bills discounted	161,262	Freehold and leasehold premises, fittings and furniture, at cost, less depreciation written off half-yearly	117,397
Balance at credit of profit and loss for appropriation, £141,652; less transferred to reserve fund, £15,000	126,652		
	27,075,542		27,075,542

An item entitled *loans* appears on both sides of this statement. Its presence on the side of liabilities shows that the discount company, unlike the joint stock bank or the ordinary commercial bank of the United States, is a literal borrower of money.[21] Between its direct borrowings from

[20] From the London *Economist*, October 19, 1912, p. 764.

[21] The commercial bank is in a sense a borrower of the funds left on deposit with it, but there is a great practical distinction between

others, presumably from joint stock banks, and its deposits received from individuals, the Union Discount Company was on June 30, 1912, indebted to outside parties for the enormous capital of £18,000,000 employed by it in its business. This sum, at ordinary rates of conversion approximately $89,000,000, is nearly twenty-five times its share capital, and constitutes practically the whole of its working funds. On the side of assets the one item of "bills discounted . . . £21,597,852" is unapproached by its fellows. The net amount of bills on hand is £21,579,852 less £6,973,184 (bills rediscounted, appearing among the liabilities), or £14,606,668.[22]

How much more important the business of discounting bills is to the discount house than to the bank appears from the figures in the table at the top of page 227.

These figures fluctuate to a degree, of course, but the difference in the composition of the assets of the two classes of institutions is most pronounced. The fraction of the total resources invested in bills is in the case of the discount houses over 85%, in the case of the banks about 10%. Certain other banks have a somewhat higher proportion of

being a borrower in this sense and being a recipient of direct and literal loans.

22 The company has £14,606,668 of bills on hand, and there are still in existence unmatured bills which it once held, but which it has rediscounted to the sum of £6,973,184. The latter are carried as a liability because the company is a "party secondarily liable" on these bills, either as guarantor, or else as indorser. That is, it is liable to make payment on these bills should their acceptors fail to pay. If the company should, perchance, be forced to pay these bills, it could, of course, look to the drawers, other indorsers, and also to the acceptors themselves for reimbursement, and thus these bills would then become at this stage a resource of the company. Thus, if bills rediscounted are carried as *contingent* liabilities, they are also properly carried as *contingent* resources. The form of statement adopted here merely conveys fuller information than it would if the item, £6,973,184, were omitted from both sides.

CLASSIFICATION OF ASSETS OF DISCOUNT HOUSES AND JOINT STOCK BANKS [23]

(December 31, 1913)

	Union Discount	National Discount	Alexanders Discount Co.	Lloyds Bank	London City & Midl. Bank
	%	%	%	%	%
Cash at bankers	2.8	2.2	2.4		
Cash in hand and at Bank of Eng.				15.1	15.9
Cash at call and at short notice	3.0	2.9	2.6	8.1	11.0
Investments in securities	7.0	8.0	7.7	9.8	7.2
Bills discounted	86.7	86.0	87.3	10.2	10.8
Loans and advances				47.8	47.3
Premises	0.5	0.9		9.0	7.8
	100.	100.	100.	100.	100.

assets carried in bills. In addition to the three incorporated discount houses there were in 1910 about twenty private firms engaged in the same business as these.[24]

§ **56. The branches of foreign and colonial banks.**—There are at present (end of year 1918) 43 joint stock banks, exclusive of the Bank of England, which employ their capitals wholly or primarily in the United Kingdom. Twenty-six are located in England, 8 in Scotland, and 9 in Ireland. The English banks have collectively 6,285 branches, and in round numbers the Scotch have 1,250 and the Irish 850.[25] A greatly preponderating part of the

[23] Compiled from data to be found in the London *Economist*, Banking Number, May 23, 1914, pp. 1212 and 1223.

[24] See statement of manager of the Union Discount Company in "Interviews," etc., already cited, p. 104.

[25] See the London *Economist's* Banking Number, May 17, 1919, p. 823.

capital of this entire group of institutions is controlled in London and employed there, and the remainder is almost all represented in London, through branches, agencies or correspondents, in such a maner as to be a factor in the discount market of that city. Important activities in this market are also undertaken by a large number of great incorporated banks which have branches in London, though their main fields of operation are scattered over the world beyond the confines of the United Kingdom. From London's standpoint these institutions are divisible into the two classes of (1) the colonial and (2) the foreign banks.

The table beneath shows some of the more important facts pertaining to the colonial banks.

COLONIAL BANKS WITH LONDON BRANCHES OR OFFICES

		Number of branches	Capital, Surplus and Undiv. Profits	Total of Assets or Liabilities	
				In £	In $
African	7	547	£14,607,000	102,000,000	495,000,000
Australasian	18	2,297	42,385,000	268,000,000	1,300,000,000
Canadian	7	1,439	24,788,000	223,000,000	1,082,000,000
Indian	5	91	8,097,000	66,000,000	320,000,000
Totals	37	4,374	£89,877,000	659,000,000	3,197,000,000

Notes:—(1) Some of these banks have their "main offices" in London, but in all cases the chief field of business is in the colonies. (2) Pounds are converted to dollars at the ratio of £1 = $4.85. (3) This table is condensed from one compiled by the London *Economist* for Oct. 21, 1916, p. 710, from the latest balance sheets of the banks available at that time.

As a matter of interest the names of a number of the greater colonial banks are given, with the totals of their assets as shown in the latest balance sheets available on May 17, 1919.

CERTAIN GREATER COLONIAL BANKS

	Total of assets in £s.
1. Bank of Montreal	114,900,000
2. Canadian Bank of Commerce	90,500,000
3. Royal Bank of Canada	88,000,000

	Total of Assets in £s.
4. Bank of New South Wales	62,100,000
5. Standard Bank of South Africa	50,300,000
6. Chartered Bank of India, Australia and China	47,600,000
7. Commonwealth Bank of Australia	47,200,000
8. National Bank of South Africa	46,000,000
9. Bank of New Zealand	40,800,000
10. Bank of Australasia	31,600,000
11. Union Bank of Australia	31,300,000

The semi-annual Banking Number of the London *Economist* gives the latest procurable balance sheets of the various foreign incorporated banks that have London branches or offices. Examination of the issue of May 19, 1917,[26] shows that there were at the time 34 such institutions. The total of the assets (or liabilities) of these banks is given below. Conversions into sterling, where necessary, are made at rates of exchange normal or usual just before the war.

FOREIGN BANKS (*i.e.*, not located in the British Empire) WITH LONDON OFFICES

	Total of Assets in £s.	
18 European banks in allied or neutral countries	877,800,000	
7 South American banks	121,600,000	
5 Banks in the Orient	103,800,000	
4 Banks in the United States	218,500,000	
Total	1,321,700,000	($6,410,000,000)

Were it not for the war we should be able to count in five banks of the Central Empires, which had at the beginning of 1914 combined total resources of about £316,600,000.

[26] The latest issue containing the data in convenient form.

The four American institutions having branch offices in London are:

	Total assets in £. (1917)
The Guarantee Trust Company	117,700,000
Equitable Trust Company	46,400,000
Farmers Loan and Trust Company	42,000,000
International Banking Corporation	12,400,000

Summary:

34 Foreign Banks with London Offices	1,321,000,000
37 Colonial Banks with London Offices	659,000,000
Total	£1,980,000,000

Interpreting this colossal figure, we should take heed of certain warnings. In the first place, the £1,980,000,000 constitute, not the proprietory capital of these institutions (namely paid-up capital plus surplus and undivided profits) but constitute their entire assets. The proprietory capital would be perhaps one-eighth as large. The next caution has reference to a particular circumstance of the present war. Since the beginning of this conflict a great expansion of bank credit has taken place in most parts of the world and the total assets of almost any system of banks will be found to be much inflated as compared with those of the year 1914. A final consideration, more general in character and more important in the present connection, is that these huge resources, though *represented* in London, are not, of course, in the main invested or employed there. An unknown but certainly small percentage of them are employed in London at any one time. Nevertheless the London branches of these banks serve as gateways to the London money market and tend to augment both the demand for and the supply of loanable funds which come together there. The relation of these banks to London tends also to maintain the custom of settling commerce by

means of sterling drafts and thus to sustain London in its dominant position as financier of the trade of the globe.

It is not to be forgotten that a vast number of banks have almost if not quite as intimate contact with the London bill market through their correspondents, even if they possess no London offices of their own.[27] There are also not a few private banking houses with London agencies, or with joint accounts or other similar arrangements with local British private bankers, which enter into the English money market. Examples from the United States are J. P. Morgan & Company of New York coupled with Morgan, Grenfell & Co. of London (and also with Morgan, Harjes & Co. of Paris); Brown Brothers & Co. of New York with Brown, Shipley & Co. of London; August Belmont & Co. of New York with Messrs. Rothschild of London, Paris, and Vienna; Lee, Higginson & Co. of Boston with Higginson & Co. of London.

§ **57. The Bank of England.**—The famous establishment known as the Bank of England consists of two very distinct divisions called the "issue department" and the "banking department." The first named has entire charge of the issue and redemption of Bank of England notes, and this is its only function. On a recent date, May 16, 1917, there were £70,971,155 of these notes outstanding and the issue

[27] During the years 1917 and 1918 a number of important amalgamations between London banks took place. The result has been at this date (May, 1919) to leave five gigantic institutions far in the lead of all others, now called the big five.

The list of these follows with the total of their assets or liabilities according to the latest balance sheets to be found at the time of writing.

London Joint City and Midland	£363,500,000
Lloyds Bank	300,700,000
London County Westminster & Parr's	287,500,000
Barclay's Bank	258,000,000
National Provincial and Union Bank of England	215,600,000

department possessed just £70,971,155 of assets to cover them, and these constituted all the assets it had. A common assumption is that the resources of the issue department are especially pledged for the payment of notes alone, but the law is not explicit on this point, and Mr. George Clare states that "good authority" has held that should the bank fail the assets of the issue department would become a part of the general fund of resources against which depositors and note-holders would have merely equal claims.[28]

The assets held by the issue department fall into two parts, (1) gold coin and bullion (amounting to £52,521,155 on May 16, 1917), and (2) British government debt and other securities (amounting to £18,450,000). In consequence, the entire circulation of the bank is thought of as divided into the two parts known as the "covered" and the "uncovered issue." On May 16, 1917, the issue was constituted as follows:

Covered issue	£52,521,155
Uncovered issue	18,450,000
Entire circulation	70,971,155

The uncovered issue is not without protecting assets but is uncovered *so far as specie is concerned.*

Under the law governing the bank—the Peel Act or Bank Act of 1844—the uncovered part of the issue is intended to be an unchangeable quantity with the exception that it may be expanded at the time when any of the few remaining country banks now possessing the circulation privilege surrender it. In the event of such a surrender the Bank of England's uncovered issue may be increased

[28] "Money Market Primer," 2d ed., p. 17. Mr. Clare says, "Though interesting in theory, the question is, of course, of no practical importance."

by two-thirds of the amount surrendered. The final maximum to which it can attain under this law will be £19,616,000. The Peel Act was drawn in contemplation of the ultimate extinguishment of all issues except that of the Bank of England, and in contemplation of the fixity of the uncovered part of the issue of this institution. There is, however, a proceeding in England known as the Suspension of the Bank Act which has the purpose of enabling the bank to expand the uncovered part of its issue in times of acute crisis, irrespective of the disappearance of any country circulation. We shall speak of this again presently.

In normal times—and this means practically all the time, since the Bank Act is very rarely suspended—the fluctuations in the total outstanding circulation take place solely in the shape of the expansion or contraction of the "covered" part of the issue. Notes are in regular course paid out by the issue department only in exchange for gold, and they are retired only upon redemption in gold. Since the covered notes to-day constitute almost three-quarters of the whole circulation, and since the retirement of notes by the public in such volume as to reach the uncovered part is hardly within the range of practical possibility,[29] the Bank of England note is in its practical aspects a gold certificate. Suppose the United States government had $1,200,000,000 of gold certificates outstanding, and should with the consent of their holders remove about $300,000,000 of the gold carried in the special trust fund reserve, and substitute an equal amount of its own bonds payable in gold. This would make the gold certificate very similar to the Bank of England note as that instrument is to-day.[30]

[29] At no time when the Bank of England has been in difficulties has there been the slightest run upon the issue department as such based upon suspicion of the bank's note.

[30] The law permits the issue department to include in the specie held to cover the notes, a one-fifth proportion of silver coin, but the

The banking department keeps its own separate cash reserve, chiefly in the form of notes of the issue department. It has to give up or forego gold to obtain these notes and holds them instead of gold for the same reason of convenience that leads our American banks to keep so large a proportion of their gold reserves in the form of gold certificates. On May 16, 1917, the banking department held £32,456,660 of notes as cash, and there were therefore but £38,514,495 of notes held by the outside public. In many cases the figure given by statisticians as "the circulation" of the bank is merely that for the notes held by the outside public.

Bank of England notes are issued in denominations of £5, 10, 20, 50, 100, 200, 500 and 1000. They are legal tender in England and Wales but not in Scotland or Ireland. They are not legal tender, however, when proffered in payment by the Bank of England itself, or as the law says "at the bank." Prior to the present war they were the only legal tender paper of the United Kingdom, but in August 1914 the British government issued its own new "Currency Notes" in denominations of 10 shillings and also of £1, with the legal tender power. These currency notes are still outstanding in large volume (£166,000,000 on July 25, 1917).[31]

As already indicated, a number of banks located in England and Wales have the right to issue circulating notes, but the total of their issues is at present subject to an absolute maximum limit of £1,166,000. These notes have no legal tender power and have in fact only local currency. Since 1844 the uncovered issue of the Bank of England has grown, by reason of the lapse of country issues, from £14,000,000 to £18,450,000. Several banks in Scotland and

bank has long since ceased to avail itself of this privilege. (*See* answers to questions addressed to the Governor and Directors of the Bank of England, "Interviews," etc., already cited, p. 12.)

[31] London *Economist*, July 28, 1917, p. 137.

several in Ireland issue notes with local circulation and no legal tender power.

The Bank of England that presides over the London money market—the "Old Lady of Threadneedle Street"—is the *banking department* of this institution. It is this department which has as deposits the reserves of the joint stock banks and which from time to time raises its discount rate to check over-expansion and to "correct" the exchange.[32] Beneath is a specimen statement of the Bank of England, showing its condition as it was shortly before the outbreak of the war.

STATEMENT OF THE BANKING DEPARTMENT OF THE BANK OF ENGLAND[33]

(June 24, 1914)

Liabilities		*Assets*	
Proprietors' capital	£14,553,000	Government securities	£11,046,570
Rest	3,160,254	Other securities	39,994,619
Public deposits	18,074,214	Notes	28,050,150
Other deposits	44,915,911	Gold and silver coin	1,624,988
Seven day bills, etc.	12,948		
	£80,716,327		£80,716,327

[32] Compare § 144 below.

[33] From the London *Economist*, June 27, 1914, p. 1571. On July 25, 1917, the issue department had notes outstanding in the sum of £68,962,690 and held £50,512,690 of gold. The banking department's assets and liabilities were in the following expanded condition:

Proprietors' capital	£ 14,553,000	Government securities	£ 48,127,661
Rest	3,311,696	Other securities	111,365,542
Public deposits	46,614,733	Notes	29,226,320
Other deposits	126,839,973	Gold and silver coin	2,615,955
Seven day bills, etc.	16,076		
	£191,335,478		£191,335,478

From *Economist*, July 28, 1917, p. 137.

STATEMENT OF THE ISSUE DEPARTMENT (same date)

Notes issued	£56,753,275	Government debt	£11,015,100
		Other securities [34]	7,434,900
		Gold coin and bullion	38,303,275
	£56,753,275		£56,753,275

The banking department is essentially a great commercial bank which receives demand deposits and makes short term loans or advances. It is distinguished by being the bank of the British government. It is not that the government owns or operates the bank, but merely that it deposits most of its funds with it, producing the "public deposits" of the foregoing statement. The item "Government securities" shows the amount of debt of the British government, whether of short or long term, carried as an asset by the banking department. The item "Other deposits" includes deposits of every description other than those of the government, deposits of joint stock banks, discount houses, bill brokers, and private firms generally. The item in the column of assets, "Other securities," is the cryptic entry which shows the total of loans and advances made in any form to all other parties than the government. No detail of this very important account is made public. Notes and coin together constitute the banking department's cash reserve.[35]

[34] "Other securities" here signifies "Parliamentary securities like the Government debt." Palgrave, "Bank Rate and the Money Market," p. 27.

[35] The following is a recent statement of the Bank of England, taken from the London *Economist* for May 17th, 1919, p. 939:

BANK OF ENGLAND

Week ended Wednesday, May 14, 1919

ISSUE DEPARTMENT

Notes issued	£102,463,240	Government debt	£ 11,015,100
		Other securities	7,434,900
		Gold coin and bullion	84,013,240
	£102,463,240		£102,463,240

§ **58. The Bank Rate.**—The *bank rate*[36] is a rate of discount, determined upon and made public by the directors of the Bank of England, as one at which the banking department stands ready to discount or purchase certain classes of bills. While this is perhaps the most widely reported and carefully scrutinized money rate in the world, its relationship with the rates at which actual business in bills is transacted in England is not a perfectly simple subject. Even the utterances of English bankers on this question are often enigmatical. Thus among the queries put to a number of these gentlemen in the year 1909 by a committee acting on behalf of the United States Monetary Commission, was this one: "To what extent does the bank rate govern your discount and loan transactions?" Mr. Charles Gow, General Manager of the London Joint Stock Bank, replied, "To speak in general terms, all the business we do has a certain relation to the Bank of England rate."[37] The answer of Lord Avebury, at the time president of the Central Association of English Bankers, was no more definite than "The bank rate is generally an expression of the market rate."[38] The question was also asked of the

BANKING DEPARTMENT

Proprietors' capital	£ 14,553,000	Government securities	£ 46,433,817
Rest	3,105,747	Other securities	77,984,317
Public deposits *	22,807,099	Notes	25,976,155
Other deposits	111,479,248	Gold and silver coin	1,560,392
Seven-day and other bills	9,587		
	£151,954,681		£151,954,681

* Including Exchequer, Savings Banks, Commissioners of National Debt and Dividend Accounts.

[36] Known more formally as "The Official Minimum Discount Rate of the Bank of England."

[37] "Interviews," etc., already cited, p. 82.

[38] *Ibid.*, p. 120.

Governor and Directors of the Bank of England itself, and here pertained to this bank's own practice. The reply brought forth was a bit Delphic, running to the effect that "the rates for discount and loan transactions at the bank usually approximate more or less closely to the bank rate." [39]

In discussing the bank rate we easily fall into the way of speaking of its relation to "the" market rate, as if to imply there is a single rate for money in the London market. In fact there are always numerous distinct discount and interest rates in force in any money center. Their differences depend primarily on term of advance and character of security. In London a few of these rates are customarily set with reference to the bank rate, or are based upon it, such as the deposit allowance rates, the rebate rate, and the rate applied to many trade bills,[40] and these are therefore like the bank rate fairly stable.[41] Others are less intimately associated with the bank rate and fluctuate freely, sometimes showing daily variations. These free market rates however rise and fall very much as a group. It is true the spacings or spreads between the different individual rates may alter to a degree, but they move as a body or somewhat as a constellation. Now when one speaks of the relation of the bank rate to the market rate he really has in mind the entire group of variable market

[39] *Ibid.*, p. 23.

[40] "Although we say that bills in the market are discounted at a lower rate than bank rate, yet there is a vast number of trade bills which are purely governed by the bank rate." Statement of Sir Felix Schuster, Governor of the Union of London and Smith's Bank, in "Interviews," etc., already cited, p. 53.

[41] The bank rate may remain unaltered through a period of perhaps six months. Again it may be changed several times a month under unsettled conditions. An exhaustive statistical and historical study of the bank rate is found in R. H. Inglis Palgrave's "Bank Rate and the Money Market" (1903).

rates rather than any single one of them. If the term "market rate" is used in a single and specific sense, it will usually mean the rate of discount charged by the bill brokers (and by the banks to customers of theirs other than the bill brokers) on prime bankers' acceptances with ninety days to run, though sometimes it refers to the rate on the same paper with sixty days to run.

To make the significance of the bank rate really clear we must distinguish between conditions of ease and conditions of stringency in the London money market. In times of ease the bank rate is rather a nominal figure. In these times it derives such importance as it has from being an index of the market. And it is this for the simple reason that in these times the governing body of the bank makes it a practice to set the rate at some fairly even figure not far above the market rates for prime bills. Thus if the latter were at say 3⅛ and 3¼%, the bank rate would probably be standing at 3½%, unless perchance it had been placed at 4% in anticipation of a rise in the market rates in the near future. Under conditions of monetary ease the bank rate is symptomatic of the market and is governed by it. Lord Avebury evidently referred to this fact in his statement quoted above that "the bank rate is generally an *expression* of the market rate." In periods of stringency the bank rate assumes a higher degree of importance. As the saying goes, it becomes "effective."

The Bank Rate in Times of Monetary Ease

One of the important activities of the Bank of England is the discount of bills of exchange. But this business breaks into two distinct lines, namely, (1) discount for the bank's own regular mercantile customers, and (2) discount (*i.e.*, rediscount) on occasion for the bill brokers and certain types of banking houses which do not come to the

Bank of England when loanable funds are abundant. The first might be called the bank's private and regular, the second its emergency discount business. The activities of the institution in its private discount business are comparable to those of the ordinary joint stock banks in the same line, and to the extent of these activities the Bank of England is competitive with the joint stock banks. In this business the Bank of England does not observe its own official minimum discount rate when this rate is above the market, but without hesitation discounts bills for its own customers at the rates prevailing in money dealings generally. (Compare, however, what appears in the next section regarding the bank's holding its discounting power in reserve for times of stringency.) In times of ease the bank itself does not observe its own official rate, and in fact no business in prime bills is anywhere being done at this rate.

Authoritative statements respecting the policy of the Bank of England are few and far between, and therefore the following excerpts from the "Interviews on Banking and Currency Systems" published by the United States National Monetary Commission are of especial interest. Examination of the interviews for England (pp. 7–124) will confirm the explanations of the London money market being given here. Under the title of "Report of answers to questions addressed to the Governor and Directors of the Bank of England," we find these questions and answers among many others.

Q. Will you state (a) the class of bills usually discounted by you, giving the number of names required; (b) the minimum size; and (c) the maximum length of time to run?

A. (a) Two British names, of which one must be the acceptor; (b) no minimum; (c) four months, exceptionally six.

* * * * * *

Q. What are the rules governing purchase by you of foreign bills?

A. The bank does not buy foreign bills.

* * * * * *

Q. What is the distinction between what are known as "prime" bills and other bills?

A. A "prime" bill we should define as a bill accepted by a London or provincial bank in first-class credit or a merchant or merchant banker of the first class whose business is to grant credits.[42]

The "merchant or merchant banker whose business it is to grant credits" is what we have heretofore spoken of as the acceptance house. When the answer states that the bank does not buy foreign bills, the meaning is it does not take bills payable in countries foreign to England, and not that it will not take bills payable in England in sterling but of foreign origin. A bill drawn by an American merchant on a London acceptance house, accepted by the latter and indorsed say by a bill broker, would be a foreign bill in the sense that it is an exemplar of foreign exchange when viewed from the standpoint of the world at large. When in England this bill is in the country where it is payable, though it is of foreign origin. The Bank of England would take such a bill as having two British names, including a British acceptor.

Q. Do you discount any but prime bills?

A. Yes.

* * * * * *

Q. Do you discount to any considerable amount for individuals and merchants?

A. The bank discounts all approved bills offered to it by persons or firms having properly constituted accounts [*i.e.*, deposits, in the American sense].

* * * * * *

[42] *See* "Interviews," pp. 20 and 22.

Q. Do you rediscount bills for the joint stock or other banks?

A. The bank is always prepared to rediscount for other banks at its official rate, and does a large business from time to time with the colonial and foreign exchange-banks [foreign banks with London branches or correspondents] who are from the nature of their business always sellers of bills. The London Clearing and West End banks [the greater indigenous banks] who are ordinarily buyers of bills and not sellers do practically no discount business with the bank.

The greater London banks nevertheless manage on occasion to shift a heavy discounting burden onto the shoulders of the Bank of England. How this is accomplished will be related in the next section.

Q. Do you sometimes purchase "prime bills" in the market at a lower rate than bank rate?

A. The bank does not purchase bills in the market.

This means only that the bank does not buy bills from sellers generally but deals alone with persons or institutions having deposits with it. The statement is misleading to the uninitiated because it suggests that the bank does not discount bills that have been in the market, whereas at times it does a great business of this kind by rediscounting for brokers and bankers having accounts with it.

Q. Would you charge a merchant house having a good account with you, the bank rate or the market rate for prime bills?

A. The market rate.[43]

The following is from the statement of Mr. Charles Gow, of the London Joint Stock Bank.[44]

Q. Do you regard the Bank of England as in any way a competitor of yours?

[43] "Interviews," etc., pp. 20–23, contains the preceding questions and answers.

[44] *Ibid.*, p. 86.

A. Yes; the Bank of England has a department in which it has customers just exactly as we have keeping current accounts [*i.e.*, commercial deposits, American usage].

War time note.—Early in the year 1917, the Bank of England so far systematized its formerly occasional practice of borrowing funds in the open market, as to name a regular rate of interest which it stood ready to pay any London clearing bank for short term loans to be made by such bank to the Bank of England. The purpose of the Bank of England here is the regulation of rates in the open market. In June the London *Economist* began the publication of the new rate in its regular weekly tables under the title of "Bank of England Rate to Clearing Banks." It would appear that it is quoted for loans at three days,[45] though loans for other periods may also be arranged.

This gives us a second and distinct *bank rate,* the significance of which to the open market is in general greater than that of the original or official bank rate itself. The effect of the offer by the Bank of England of say 5% for three-day loans is to make it impossible for any one to obtain call or short term money from the great London banks, and consequently from any others, at a cheaper figure. This will cause the rates of discount for bills to be sustained at some figure above 5%. Why the central institution has an interest at certain times in stiffening the open market, even perhaps at some expense to itself, will be discussed later.

The establishment of relations between the Bank of England and the U. S. Federal Reserve System.—On December 20, 1916, the Federal Reserve Board approved the application of the Federal Reserve Bank of New York for the establishment of certain relations between it and the Bank

[45] *Economist* for June 23, 1917, p. 1145.

of England. The following statement regarding the character of these relations is taken from a "communication" received by the London *Economist* and published in its issue of May 5, 1917, page 766. "Negotiations for establishing relations between the Bank of England and the Federal Reserve Bank of New York, which were commenced by the governors of the respective institutions some months ago, have now been concluded. The arrangement provides that the Bank of England will act as the correspondent and agent in London of the Federal Reserve Bank of New York, and that the Federal Reserve Bank of New York will act in a similar capacity in New York for the Bank of England. It is not the intent of the plan that these institutions engage in commercial foreign transactions, the relationship established being primarily for the purpose of affording greater stability to rates of exchange by maintaining with each other mutual accounts of deposit, and by representing each other in the purchase of bills. The plan will also create machinery by which transactions in gold and gold coin will be facilitated, which should result in normal times, in eliminating or reducing the extensive and unnecessary shipments of gold between nations to settle international balances, which have heretofore not infrequently prevailed."

§ 59. Rediscounting at the bank in times of stringency.— The fact that the Bank of England is to a degree a competitor of the joint stock banks appears to be a cause of complaint on the part of the latter,[46] for the bank has very large deposits from these institutions interest-free, and thus may be charged with using their funds to accommodate business which might otherwise come to them. On the other hand the Bank of England has its own earnings to look

[46] The fact that the Bank of England is a competitor is a "source of grave complaint by the other banks." Statement of Sir Felix Schuster, "Interviews," etc., p. 48.

after in the long periods of monetary ease and quiet. But the merits of this question lie beyond our field. The great and outstanding fact is that the bank does not enter into full and unreserved competition with the other institutions of the open market. Without its making any express acknowledgments that it is under any peculiar obligations, the Bank of England in point of practice keeps its own private discount business within limits and *contrives to hold its discounting power in reserve* in order to take care of the general money market of London in times of stringency. It is the custom of the bank to follow this policy and London expects it to do so, although there is no legislation directly or indirectly making the policy compulsory. This is the British way.

The method by which the city secures relief from the bank under conditions of strain is simply that of rediscount, and it is for this reason that the Bank of England belongs to the class known as banks of rediscount. But, as already made clear, some of the great joint stock banks never rediscount with the Old Lady of Threadneedle Street or at any other place. What the policy of all these institutions is, is not publicly known, but it seems to be generally assumed in the literature of the subject that there is no appreciable rediscounting by this group under any conditions.[47] But even if these banks do not make direct application to the Bank of England for aid in time of trial, they have a way nevertheless of passing much of the burden of the moment over to this establishment.[48] The proceedings

[47] In this respect English banking practice is in sharp contrast with that in France and Germany and other continental countries, where even the greatest ordinary incorporated banks rediscount freely with their respective central banks.

[48] For the student it may be explained that the burden in question is that of exchanging cash for time paper. A period of strain is one in which demands for cash on the part of the depositors or creditors of the banks are too heavy for satisfaction from the exist-

which take place are peculiar to London and are essentially as follows. The joint stock banks find their reserves becoming too low. Thereupon they fall back upon one of their most liquid assets, the one listed in their balance sheets next to their "cash in hand and at the Bank," namely, the call and short term loans which they have made to the bill brokers and discount houses. They exercise their privilege of terminating, or calling, these loans and this imposes upon the bill dealers the necessity of paying them off in cash. But the bill dealers have invested all this call and short term money in bills, and to return it to the banks they must sell all or most of their bills. Usually they sell bills to the banks themselves, but not now, because now the banks are not buying bills, at least in the usual quantities, being engaged in converting assets into cash rather than converting cash into bills or any other kind of paper assets. The Bank of England now stands as a place of refuge for the bill dealers. If the stringency is severe a veritable rush into the bank may ensue. As they say in London, "the market has come to the Bank" or "the bill brokers are in the Bank." On these occasions the central institution undertakes to provide accommodation, but charges the official bank rate, meanwhile, in case of need elevating this rate.

The immediate results of this process are two: an increase in the reserves of the joint stock banks and a decrease in the reserve of the Bank of England. The first

ing reserves without embarrassment. So it becomes necessary to convert some of the assets other than cash into cash. For this purpose the joint stock banks might sell, or rediscount, bills from their portfolios, but this is what they do not do in practice. Instead they convert their call loans to bill brokers, another asset, into cash. They do this indirectly by the aid of the Bank of England, and it is practically all one to that institution which way they follow, though it appears not to be all one from the standpoint of the joint stock banks.

result comes about practically in this manner. The bill brokers use the proceeds of their rediscounts and loans [49] at the Bank of England to pay off their call loans at the joint stock banks. They draw checks on the Bank of England in favor of these banks and the latter simply deposit the checks to the credit of their own accounts with the same institution. This augments their reserves by increasing that part of reserves known as "cash at the Bank of England." That these additional deposits, like all the deposits at the Bank of England, are subject to withdrawal in cash on demand, goes without saying. To what extent the Bank of England will begin to lose cash depends on circumstances, but more upon the international gold movement than upon domestic conditions. If gold exports are taking place from London, the Bank of England is likely to have to supply a large part of the metal. That is, some one exporting gold will turn up at the bank with checks payable by it and demand actual specie, or will demand it on account of his own deposit credit.

The decrease in the reserve of the Bank of England ensues whether or not the joint stock banks make cash withdrawals from their deposits, though the effect on the reserve is much greater if they do make such withdrawals. We have here to recall explanations first made in §§ 19 and 20. If no withdrawals of deposits are made, the *percentage* of the reserve of the bank is reduced because its deposit liabilities have been expanded without its having received any inpayments of cash. Total demand liabilities having increased and total cash having, as we assume, stood still, the cash bears a smaller proportion to the liabilities than before. This decline in the percentage of the reserve is properly spoken of as a decrease in the reserve, even when there has been no absolute falling off of the cash

[49] In addition to the rediscount of bills at the bank, the market (namely, the bill dealers) may procure some loans on collateral.

on hand, because it is the proportion of the reserve to the reserve-bearing liabilities, and not in the least the absolute amount of cash in vault, which determines the strength of a bank's position.

If cash withdrawals are made, the absolute amount of the cash on hand is reduced, and the percentage of the reserve is reduced in greater degree than under the first supposition.[50] The Bank of England's discounting and lending power is hardly unlimited. When as a consequence of its aiding the market it finds its reserve beginning to decline, it must take steps to prevent this process from going too far for the reasons which govern any bank. Although it is fortified by the tremendous traditional public confidence imposed in it, it must not allow its reserve to fall to the point which might be provocative of a run. The chief preventive it applies in these junctures is an elevation of the bank rate. The highest point this rate has ever reached is 10%. In the period from 1844 to 1900 inclusive, comprising 20,570 days, it stood at 6% for a total of 868 days, at 7% for 577 days, at 8% for 268 days, at 9% for 95 days, and at 10% for 141 days.[51] On the first four days of August 1914 it was at 10%. Since 1844 the rate has been at this, its extreme height, in but three years, 1857, 1866, and 1914.

When the bank rate is elevated as a protective measure, an effect is produced upon both the domestic and the foreign influences impinging on the London money market, but the effect on the foreign influences is the more important. It is true an increase in the charge for discounts and advances tends to repress the demand for accommodation which comes from purely domestic sources, or tends to reduce the proportion which the volume of paper seeking discount bears to the funds available for taking care of it,

[50] Compare calculations in § 20.

[51] From Palgrave's "Bank Rate and the Money Market," p. 99.

and thus tends to provide relief from the drain. But for London, as contrasted with any other center, the domestic effects of increased rates for money have the smallest importance relative to what we may call the foreign effects, namely the effects upon dealings in other countries in sterling exchange and upon the international gold movement. The latter will be brought under discussion in Chapter XX below, after the ground has been further prepared for the subject. During periods of stress the bank discounts for and makes loans to the London market and protects itself when necessary by increasing its rate. At such times this rate is an effective one, governing actual business. When the monetary pressure subsides and ordinary conditions return the bank rate resumes its nominal character and becomes a mere index of the market.

War time note.—Certain modifications in the practice of the London money market have been produced by the conditions of war. Probably various minor changes are now in effect that cannot be ascertained, much less clearly understood, by any one outside the immediate circle of bankers and dealers directly concerned. It is too early to undertake prophecy as to what alterations if any will be perpetuated after the war, though it seems unlikely that the general framework will be modified seriously. We have already adverted to the new bank rate, or rate of interest offered by the Bank of England to the clearing banks for short term loans. It remains to speak of a new practice in borrowing from the Bank of England, as evidenced by the following news item, dated March 3d, 1917. "Money has been comfortably abundant, on the whole, though a little business in discounts at 5¼% has been done at the Bank of England. It is clear that the banks are acting mercifully by the bill brokers, and, instead of calling in money from them, are going direct to the Bank of England

themselves, and borrowing the sums needed in order to carry out the big transfers of cash involved in the War Loan payment." It is stated only that the "banks" are acting mercifully by the bill brokers, but it may be assumed that the great joint stock banks, or some of them, are meant. The loans referred to are incidental to very special and large operations connected with the government's borrowings and are doubtless undertaken for the laudable purpose of reducing the accompanying money market disturbances, and one cannot infer that they will hold their place in practice after the war. Nevertheless it appears there has been here at least some departure from the ante-bellum methods, under which the great banks customarily refrained in periods of stress from applying for advances from the Bank of England, and resorted exclusively to the expedient of calling in their day to day and short loans thus forcing the bill dealers into the bank.

§ 60. **Interest and discount rates customarily in fixed relation with the bank rate.**—Five rates appearing in London banking and bill dealing are as a matter of custom based directly upon the bank rate, standing in ordinary times at a fixed or specified distance above or below this rate or exactly even with it. As the bank rate steps up or down, these rates step up or down to the same extent. Three are interest, and two are discount rates.

(1) *The regular deposit allowance rate.*—This is the rate of interest paid by the joint stock banks on the deposits at notice of ordinary persons or firms. It is determined upon by these banks in concert, at meetings of their representatives held every time the bank rate is changed,[52] but the usual practice has been to set it at a point 1½% below the bank rate. When, however, the latter ascends to a high figure, the deposit allowance rate does not neces-

[52] *See* statement of Sir Felix Schuster, "Interviews," etc., p. 45.

sarily follow it up. For instance in the panic year of 1907 the bank rate climbed to 7% but the deposit allowance rate did not go above 4%. During the present war the relation of this rate to the bank rate has become very much less intimate than it was in the preceding period of peace, the spread between the two showing great variability. The discount houses have deposit allowance rates as well as the banks. These are not necessarily identical with the banks' rate and are allowed on deposits on demand as well as deposits at notice. Deposits at notice usually bear a higher rate than those on demand.

(2) *Rate allowed on the balances of foreign banks.*—This rate, analogous to the foregoing, differs for different banks and is placed at a stipulated distance under the bank rate, commonly with a maximum limitation. It is usually ½ to 1% below the bank rate.[53] This is a rate allowed by the joint stock banks on the checking accounts of foreign banks.

(3) *Rate of interest charged on overdrafts.*—Lending by the method of overdrafts is not regular London practice,[54] but foreign banks arrange for overdrafts on occasion on their correspondents in London, and these are usually subject to an interest charge at the Bank of England rate or at ½ to 1% above it, according to agreement.[55]

(4) *The retirement rate of discount.*—This rate (discussed in § 35) is in English practice maintained at a figure ½% above the deposit allowance rate, and thus through the latter is related to the bank rate. When the deposit allowance rate is at 1½% below the bank rate, the retirement rate is 1% below it.

(5) *Rate of discount applied to many trade bills.*—Trade

[53] Margraff, "International Exchange," p. 117.

[54] Statement of the manager of the London Joint Stock Bank, in "Interviews," etc., p. 78.

[55] Margraff, "International Exchange," p. 117.

bills, or those drawn on merchants instead of upon banks, are discounted at rates which vary considerably according to personal security, character of documents, and term, but large quantities of these bills are as a matter of informal practice discounted exactly at the bank rate.[56]

With respect to the general market rates which do not have a fixed relation with the bank rate, such as the open market rate for bankers' acceptances or the rates for trade bills accepted by the larger mercantile houses, these rates usually lie in a region between say ¾ and ¼% below the bank rate. Another and on the whole better way of stating this is that usually the bank rate is placed a distance above the market rate on bankers' acceptances, and is maintained at a fairly steady figure while market rates fluctuate freely by sixteenths and eighths of 1%. The exception to this occurs in times when the bank rate becomes effective, as explained on earlier pages.

§ 61. **The group of London money rates.**—The tables of London money rates published in the London *Economist* are the most complete among those readily accessible to the common man. Beneath is a specimen of the briefer table appearing regularly in that journal's weekly article on money.[57]

	Aug. 24, 1917 %	Aug. 17, 1917 %	Aug. 10, 1917 %	Aug. 3, 1917 %
Bank rate	5	5	5	5
Bank of England rate to Clearing Banks	4	4	4	4
Bank's deposit rate.....	4	4	4	4
Market rate (3 months bills)	4¾ 13/16	4¾ 13/16	4¾ 13/16	4¾ 13/16

[56] *See* "Interviews," etc., pp. 53 and 83.

[57] The first table is from the *Economist* for Aug. 25, 1917, p. 274. The longer tables are from the issue for May 5, 1917, p. 788.

The more detailed tabulations to follow give a better idea of the number of rates and the extent to which they vary as between different days and different classes of discounts and advances.

LONDON RATES

	April 27, 1917	April 28, 1917	April 30, 1917	May 1, 1917	May 2, 1917	May 3, 1917	May 4, 1917
	%	%	%	%	%	%	%
Bank rate	5	5	5	5	5	5	5
Market rates of discount:—							
60 days' bankers' drafts	4⅝ ¾	4⅝ ¾	4 11/16	4⅝ 11/16	4⅝ 11/16	4 11/16	4⅝
3 months' do.	4¾	4¾ 13/16	4 11/16 ¾	4 11/16 ¾	4¾	4¾	4¾
4 months' do.	4¾	4¾ 13/16	4¾	4 11/16 ¾	4¾	4¾	4¾
6 months' do.	4 13/16 15/16	4⅞	4 15/16 ⅞	4 13/16 ⅞	4 13/16 ⅞	4 13/16 ⅞	4¾ ⅞
Loans:—Day to day.	4 ½	3½ 4¼	3 4	3½ 4½	4¼ 4½	4¼	3½ 4½
Short	4¼ ½	4¼ ½	4½ ½	4¼ ½	4¼ ½	4¼ ½	4¼ ½
Fortnight (at last Settlement)	5½	5½	5½	5½	5	5	5
Deposit allowances:							
Banks	4	4	4	4	4	4	4
Discount houses at call	4	4	4	4	4	4	4
At notice	4¼	4¼	4¼	4¼	4¼	4¼	4¼

Comparison with previous weeks:

	Floating Money	Trade Bills			Bank Bills		
		3 Months	4 Months	6 Months	3 Months	4 Months	6 Months
1917	%	%	%	%	%	%	%
Feb. 9...	4¾ 5	5	5	5	6½	5½ ¾	5½ 6
16...	5	5⅛	5⅛	5⅛	5½	5½ ¾	5½ 6
23...	5	5 3/16	5 3/16 ¼	5¼	5½	5½ ¾	5½ 6
Mar. 2...	4¾ 5	5	5 ⅛	5 ⅛	5½	5½ ¾	5½ 6
9...	4½ ¾	4¾ 13/16	4¾ 15/16	4¾ 13/16	5¼ ½	5½	5½ ¾
16...	4¼ ¾	4½ 9/16	4½ ⅝	4½ ⅝	5	5 ¼	5 ½
23...	4¼ ½	4½	4½	4½	5	5 ¼	5 ½
30...	4¼ ½	4 9/16	4 9/16	4 9/16	5	5 ¼	5 ½
April 4...	4¼ ½	4½ 9/16	4½ 9/16	4 9/16	5	5 ¼	5 ½
13...	4 ¼	4½	4½ ⅝	4⅝	4¾	5	5 ¼
20...	4¼ ½	4 13/16 ⅞	4¾ ⅞	4⅞ 5	5	5 ¼	5 ½
27...	4¼ ½	4¾	4¾	4 13/16 15/16	5	5 ¼	5 ½
May 4...	4¼ ½	4¾	4¾	4¾ ⅞	5	5 ¼	5 ½

The rate for "floating money" means the rate for short loans (*see* the first column of the last table). By assembling all rates found in the foregoing tables and adding a few more, we shall obtain a practically complete list of discount and interest rates prevailing in the world's monetary capital at the present time. The list follows:

(1) The Bank Rate, or "Official Minimum Discount Rate of the Bank of England."
(2) The Bank's rate to clearing banks, or rate of interest offered the clearing banks by the Bank of England for short term loans to be made by them to it.
(3) The market rate, or the rate of discount in the open market for prime bankers' acceptances with 90 days to run. Associated closely with this is the sub-group of rates for bankers' acceptances with other lengths of life.
(4) The open market rates for trade bills (those drawn on mercantile firms, etc.) varying according to personal security and tenor.
(5) Interest rate on "day to day" or call loans.
(6) Interest rates on term loans, varying according to term, parties, and character of collateral.
(7) Interest rate known as the "deposit allowance rate," paid by joint stock banks for deposits at notice.
(8) Deposit allowance rates paid by discount houses for deposits at notice and also for deposits at call (the latter being generally a trifle lower than the former).
(9) Interest rates paid by banks on the balances of foreign banks carried with them.
(10) Overdraft rates, or rates of interest charged by banks on the overdrafts of other banks carrying balances with them.
(11) The retirement rate of discount or "rebate" rate.
(12) The arrival discount rates for divers types of bills remitted by foreign banks (*see* next section).

Of the above rates, numbers 3, 4, 9, 11, and 12, are of the most direct interest to bankers outside of England in connection with their dealings in sterling exchange.

§ 62. **The "arrival" discount rate.**—Sufficient attention has already been paid to the rates listed in the preceding section, except the "arrival" or "forward" discount rate. This is a rate at which a London correspondent bank will undertake to discount a bill or parcel of bills "to arrive," to use the banker's phrase. This means it is a rate which a correspondent quotes, by telegraph to an exchange bank dealing with it, in advance of the shipment of a parcel of bills by the latter. The rate when accepted is applicable to any bills mailed on the day when the quotation is received. It will be applied to these bills on the day of their arrival, from five to fifteen days later according to circumstance and location, in the case of bills shipped by American banks to England. The arrival rate differs according to time expected to elapse before the bills are received and according to the character of the bills—in other words there are really a number of arrival rates. When the American banker rates a certain bill as belonging to a given class and as being therefore entitled to a certain quoted arrival rate, this rating must of course be confirmed by the London bank, but the American banker gets to be a good prognosticator in this matter respecting such bills as he sends over under the arrival rates.

The quotation of such a rate by a London bank amounts to an undertaking to purchase long bills at a designated present worth in sterling on a future date, namely the date of their receipt. The arrival rate being accepted, the London bank's obligation is not affected by the actual market rate of the day of the receipt of the bills. By obtaining and accepting arrival rates, the American bank avoids a speculation on the changes that may take place in the London money market during the journey of each lot of bills across the Atlantic. For without an arrival rate it would be taking its chances as to what the market rate will be on the day of arrival. The London bank shoulders

the speculation. It has superior opportunities to predict the future course of London rates. If its arrival quotation turns out higher than the actual market rate of the day when the bills come in, it makes a gain, if lower a loss. On the average it cannot make very great gains, otherwise the American bank would fall to taking its chances on the market rate. It is only by reason of the existence of the arrival rate that the calculation of the value of a long sterling draft in New York can be made perfectly definite (compare § 64). Continental banks in general quote arrival discount rates as well as the English.

§ **63. Stamp taxes.**—There remains to be considered but one further factor which influences the American dealer in exchange in his price-making for bills. This is the stamp tax on negotiable instruments levied by the government of the foreign country in which the bills in question are payable. As previously, we shall restrict our discussion to the case where the foreign country is England, but nearly all the leading countries of the world, except the United States, impose stamp taxes on bills and notes.[58]

The chief provisions of the British law pertinent to dealings in exchange are as follows. *Cheques:* Cheques and drafts payable on demand, or within three days after sight, pay a tax of 1d. regardless of the amount for which they are drawn. *Long bills:* (1) Long drafts drawn in the United Kingdom, and long drafts made payable in the United Kingdom, though of foreign origin, are taxable according to the following schedule,—

Not exceeding £5	1d.
Above £5 and not exceeding 10	2d.

[58] A very comprehensive article giving the stamp taxes of practically all countries of the globe, as in force at the time of writing, is to be found in the *Journal of the Institute of Bankers*, London, vol. XXIX, pp. 427–51. So far the war has worked no changes in the British stamp taxes on checks and drafts.

Above 10 and not exceeding 25.....3d.
Above 25 and not exceeding 50.....6d.
Above 50 and not exceeding 75.....9d.
Above 75 and not exceeding 100.....1s. 0d.
For every additional £100 or fraction thereof....1s.

A tax of 1 shilling per £100 reduces to a rate of ½₀ of 1%. (2) Drafts drawn outside of the United Kingdom and payable outside of the United Kingdom, are subject to a tax if negotiated in the United Kingdom, payable at the time of the first negotiation. The rates of the preceding schedule apply here upon drafts of £50 or less, while those exceeding £50 but not in excess of £100 must bear a stamp of 6d. Still larger drafts pay 6d. for every additional £100 or fraction thereof. This is at a rate of ¼₀ of 1%.

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CHAPTER IX

THE PURCHASE OF BILLS FOR DIRECT CREDIT TO THE FOREIGN BALANCE

§ **64. Buying bankers' long bills.**—Though a bank can make arrangements permitting it either to buy or sell bills on a place where it keeps no balance, such dealings are not likely to be extensive. The present chapter will concern itself only with dealings on a place where a balance is carried and will be confined to operations based directly upon such balance. It will be best to begin with the purchase of a banker's long bill. This kind of exchange is often drawn and sold in large quantities. Its origin or supply will be discussed in Chapter XII. At this point we shall concern ourselves with the buying price offered for it.

The banker who buys another banker's long bill on a foreign city might conceivably have a mind to invest in it, but practically this is not likely to be the case because the money market and exchange conditions which lead to regular drawings of this kind are unfavorable to investment in exchange. It shall be assumed, therefore, that the bill is purchased with a view to its being discounted on its arrival abroad for an immediate credit to the balance of the bank that has bought it.

Suppose then that a 60 days' sight bill for £1,000 drawn by a New York bank on some bank in London is offered for sale in New York. What can the buyer pay for this instrument? This will depend on three factors: (1) the rate of the day in New York for bankers' *sight* sterling drafts, or in short what is called the sight rate, (2) the

London arrival discount rate quoted this day for 60 days bankers' bills, and (3) the stamp tax. The price will first be calculated that can be paid for the bill without the purchaser making either profit or loss. This will give us what may be called the no-profit buying price, and the amount of this price per pound of face value of the bill, will be the no-profit buying *rate*. If the price of the £1,000 bill turns out to be $4,834.00, the rate would be 4.8340 (*i.e.*, $4.8340 per pound).

The sight rate in the open market depends upon the supply of and demand for sight bills as determined by the needs of the whole body of dealers. This supply and demand is affected by the operations of the market in all other kinds of exchange than sight bills, being profoundly influenced especially by the volume of long bills originating in trade. The manner in which dealings in cables and long bills react upon the sight rate will be discussed in the chapter on the theory of exchange rates. The fact of present concern is that the position of the rate for sight drafts is governed primarily by the course of the foreign commerce of the nation and by international borrowings, and is to be taken by the banker, who is figuring a buying or selling price for any other type of exchange, as a *predetermined and given factor in his calculations.*

The long bill, whose purchase we are about to consider, will be converted into cash credit for the London balance on its arrival. The rate payable for it on this side will depend primarily and directly on the existing sight rate because this long bill will either (1) be remitted abroad as a substitute for sight exchange to increase the foreign balance, or (2) it will be used as cover for a sale of sight exchange, the latter being its employment if the foreign balance is already as large as desired. In either case what the long bill is worth in New York will depend primarily upon what sight sterling is worth at the time. The second

supposition is best taken as the normal theoretical assumption upon which to calculate the buying price of any long exchange. To explain: if the purchased 60 days bill for £1,000 will yield on arrival a cash credit of say £993 to the buying banker's London balance, and if there is no especial reason at the time for the addition of this sum to the balance, the policy indicated to the banker is the sale of £993 [1] of his sight drafts on the local market—this policy being founded upon what we ventured in § 52 to call the rule of equal sales and purchases. Clearly what the long bill is worth to him depends upon what he gets for the sight drafts which it will cover, and thus upon the sight rate. The completed operation in theory consists of two parts, (a) the purchase of the long bill and (b) the countervailing sale of sight drafts. One involves an outlay of dollars and the other a return of dollars. Together they leave the foreign balance unchanged, but afford a profit on this side provided the long bill is bought cheap enough.

COMPUTATION IN UNABBREVIATED FORM OF THE NO-PROFIT BUYING PRICE FOR A BANKER'S LONG BILL

Take a 60 days' sight bill for £1,000.

Sight sterling rate (on day of purchase)	4.87
London arrival discount rate	4%
Stamp tax	1/20%

No commission charges.

Present worth of the bill on its arrival in London.

This bill becomes payable in London 63 days after the date of its arrival, assuming acceptance to be procured on the day of arrival.

63 days' discount at 4% will be $^{63}/_{365}$ of 4% of £1,000.

(The English count the year as 365 days, and not as 360)

[1] Not that it is supposed he will in fact find a purchaser for this precise amount. Whatever he sells, this particular long bill is re-

This amounts to ..... £6 18s. 1d.
The present worth of the bill is then £1,000 less this amount, or .....£993 1s. 11d.

Net cash value of this bill to the London deposit.

The stamp tax on the bill (1s. per £100)..... 10s.
This is paid by the London correspondent and charged to the remitting bank.
The present worth of the bill as above.....£993 1s. 11d.
which equals.....£992 21s. 11d.[2]
Less stamp tax ..... 10s.

Net cash value of the bill.....£992 11s. 11d.

No-profit purchase price of the bill in dollars.

Amount of demand draft that can be sold against this bill .....£992 11s. 11d.
Which expressed decimally is £992.596
£992.596 × 4.87 (N. Y. rate) = ...$4,833.94
No-profit buying rate would therefore be 4.8339, nearest standard quotation being.....4.8340

Under the data given, the computation shows that the banker can obtain from the long bill $4,833.94 cash return in New York on the day he bought it. For we may assume that he can sell the 992 odd pounds of sight drafts on this day. The two parcels of exchange, the long bill bought and serving as cover and the sight bill sold against it, may well cross the ocean by the same steamer. If it were necessary to give the cover one day's start, the turnover would be theoretically chargeable with one day's interest on the cost of the long bill. The bill yields a return of $4,833.94, and therefore if the banker paid exactly this price for it, or bought it at the rate of 4.8339, he would make neither profit nor loss.

sponsible for his ability to draw exactly £993 of demand drafts, and is of course to be valued accordingly.

[2] Obtained by deducting £1 from £993 and adding it, as 20 shillings to the 1s. £1 = 20 shillings. 1 shilling = 12 pence, or "12d."

The account of this operation is restated beneath in a modified form.

A £1,000, 60 days' bill bought at 4.8339 costs.....		$4,833.90
It produces a net (tax free) cash credit abroad on arrival of	£992.596	
It provides cover for the sale of a demand bill for this amount of sterling.		
£992.596 demand exchange sold at 4.87 yields[3].....		$4,833.90
Profit (or loss)		0

It is clear if a profit is to be obtained when the sight rate is 4.87 and the discount rate is 4%, the bill must be bought under the rate of 4.8339. If, for instance, it could be bought at 4.83, a profit of 39/100 of 1 cent would be made on each pound. This would be a profit of about 1/12 of 1%, or $3.90 on a bill for £1,000. So large a profit could hardly be obtained in fact under normal conditions from the purchase of a prime banker's bill.

The banker's practical method of figuring the price of a long bill is briefer and more direct than the one just explained. It involves a trifling theoretical error,[4] as will be shown, but we have begun with the longer computation not so much because of this fact as because this longer form enables one unfamiliar with exchange to understand the reasoning leading to the answer. The abbreviated practical computation is useful in obtaining the desired result, namely a sufficiently accurate answer to the problem, but the reasoning underlying it is not on the face of it per-

[3] The fixed tax of 1d. on demand bills, regardless of their amount, is treated as negligible.

[4] The error is trifling so long as sterling remains within the normal limits between 4.84 and 4.88. The enormous war-time fluctuations of sterling in New York have had the effect of making the error very significant and have forced bankers to abandon their old computing tables.

fectly intelligible. It is given beneath for the same bill and date as before.

THE PRACTICAL METHOD OF CALCULATING THE PRICE OF THE BANKER'S 60 DAYS' BILL

Rate for banker's sight drafts		4.87
63 days' discount at 4%	.0335	
(Taken as $^{63}/_{365}$ of 4% of 4.85, $4.85 being assumed as the equivalent of £1, so that the discount on £1 may be converted to U. S. money.)		
Stamp tax, at the rate of 1/20%	.0024	
(1/20 of 1% of 4.85)		
	.0359	.0359
No-profit buying price of the bill		4.8341

The discount and stamp tax appear in the above tabulation as decimal fractions of an American dollar, but the real discount and tax are in point of fact deductions (from the face or maturity value of the long bill) made in London and in sterling money. They are really subtracted to find the net spot-cash value of the bill to the remitting bank's London balance. The amount of discount and tax for each pound of the long bill may be figured quite as easily as for the whole sum due upon it. Thus,

The discount on each pound	£.0069
$^{63}/_{365}$ of 4% of £1	
The stamp tax on each pound	.0005
1/20 of 1% of £1	
Total	.0074

When we speak of a pound of long bill we mean a pound of its face value. If such a bill converted, on arrival in London, into cash credit without the deductions of discount and tax, so that each pound of it produced a full pound

of cash credit, it would be worth $4.87 per pound in New York on the day of purchase, provided the sight rate stood at 4.87 on that day. But in this conversion into cash credit, each pound suffers the deductions for discount and tax calculated above. On the basis of these data we can perform the following modified computation to find its worth (or no-profit buying price) in New York.

Value of each pound of long bill without allowance for the deductions due to discount and tax.		$4.87
Loss in dollars for the deduction of the discount ..... (.0069 × 4.87)	.033623	
Explanation:—£.0069 being taken out for discount means £.0069 less of sight exchange saleable against £1 face value of the long bill, and a consequent giving up of .0069 × $4.87.		
Loss in dollars for the deduction of the stamp tax ..... (.0005 × 4.87)	.002435	
Explanation:—The same as above.		
Total loss or deductions	.036058	.036058
Net value of each pound		4.833942

The following computation is arithmetically identical with the foregoing.

Sight rate		4.87
63 days' discount at 4%.....	.033623	
$\frac{63}{365}$ of 4% of 4.87		
The same as .0069 × 4.87		
Stamp tax at rate of $\frac{1}{20}$%	.002435	
$\frac{1}{20}$ of 1% of 4.87		
The same as .0005 × 4.87		
	.036058	.036058
		4.833942

This reckoning is strictly correct. It differs from the banker's practical computation (given on pages 64–6) only in that it makes use of 4.87, namely *the existing sight rate,* in converting the discount and tax into dollars, whereas the banker uses *the fixed figure 4.85* for this purpose.[5] It is this use of 4.85 as a constant which brings into the practical computation the trifling error of which we spoke. To obtain perfect accuracy the existing sight rate must always be employed in the foregoing conversions. It is only when the sight rate happens to stand at 4.85 that the banker's calculation is absolutely exact.

In the illustration before us, the practical method gives a no-profit price that errs by being too high. Thus,

No-profit rate	
According to the practical method.....	$4.8341
According to the true method.....	4.833942
Difference	.000158

Though so small, this error would mean that on £100,000 of 60 days' bills bought under the conditions of our illustration the banker would figure his buying price $15.80 too high for the whole lot. When the sight rate is below 4.85 the practical method makes the buying price come out too low and causes the dealer to obtain slightly more profit in the purchase of long bills than his computations show on the surface.

The reason justifying the use of 4.85 as a constant is simply one of convenience. On the basis of this figure a single table can be prepared which will show at a glance the amount of deduction in dollars to be made for discount at all the various rates of discount commonly quoted and for all the different length of life of bills ordinarily bought.

[5] Or did so prior to the war, when sterling rates remained within their normal limits, generally between 4.84 and 4.88+.

Tables founded on the correct method could be computed for all different sight rates met with in practice, but the single table has apparently seemed sufficiently accurate to actual dealers. Theoretically the stamp tax converted to dollars is also variable with the existing sight rate, but bankers are content to subtract the constant .0024, based on 4.85.

§ **65. Buying long bills drawn by merchants on banks.**— Having explained both the true and the practical methods, we shall be content henceforth to follow the latter alone. Suppose for the next problem that an American exporter offers for sale his 90 days' documentary draft upon a London bank, drawn under a latter of credit, when the arrival discount rate for such a bill is 3% and the sight rate is 4.85. What price will a local exchange bank offer for this bill? When this instrument becomes the acceptance of the London bank, which we may assume to be one in first class standing, it becomes a prime bill. As such it

BANKER'S BUYING PRICE FOR MERCHANT'S 90 DAYS' SIGHT DRAFT ON LONDON BANK

Sight rate, or rate for banker's sight drafts		4.85
93 days' discount at 3% ($^{93}/_{365} \times 3\%$ of 4.85)	.0371	
Stamp tax ($\frac{1}{20}$ of 1% of 4.85)	.0024	
Correspondent bank's commission (Taken as $\frac{1}{40}$ of 1% of 4.85)	.0012	
	.0407	.0407
Buying price at which the bank would make no profit		4.8093
Profit required, a variable, say ¼ cent per £		.0025
Rate yielding this profit		4.8068
Nearest standard rate	4.8070	

will be entitled to the lowest rate of discount for 90 days' paper in the London market. This fact will have been taken into consideration by the correspondent of the buying bank, at the time when this correspondent named an arrival rate of 3%. The documents will, of course, be "for acceptance" and after the act of acceptance takes place the bill will become a "clean" one.

In addition to discount and stamp tax, commission appears as a new deduction in this computation. We assume the correspondent charges the remitting bank a commission at the rate of ⅛₀ of 1%, upon this bill because of the attached documents which it has to handle.

The deductions of .0407 plus the profit of .0025 make the difference between the sight rate and the buying rate quoted for this bill come to .0432. Such a difference is sometimes called the "spread." So long as discount, tax, and commission are at the same rates, and the profit exacted remains the same, the spread is a constant no matter what the sight rate may be. That is, it figures as a perfect constant under the practical method of computation, and it will be a virtual though not perfect constant under the theoretically correct method. Thus under the practical method, any of the following computations hold good.

Sight rate.....	4.88	4.8650	4.85	4.84
Spread	.0432	.0432	.0432	.0432
Buying rate	4.8368	4.8218	4.8068	4.7968

§ 66. Trade bills, documents for acceptance.—By a trade bill is meant, at least in this connection, one drawn by a merchant on a merchant. This is the kind of bill considered at length in Chapter VI. It becomes the acceptance of a merchant or mercantile house, and not the acceptance of a bank or of an acceptance house with a standing practically equal to that of a bank. In the case of most

trade bills, documents are "for payment," but if the drawee has a sufficiently high standing they may be "for acceptance" as is assumed in this problem. In this instance, then, the bill will after acceptance become clean and will be discountable in London at a rate depending on the standing of the acceptor. Assume that the arrival rate under which the bill in hand is sent over is 3½%.

BANKER'S BUYING RATE FOR MERCHANT'S 90 DAYS' SIGHT BILL ON A MERCHANT, DOCUMENTS FOR ACCEPTANCE

Sight rate		4.85
93 days' discount at 3½%	.0433	
Stamp tax	.0024	
Commission	.0012	
	.0469	.0469
No-profit buying rate		4.8031
Profit required, variable, say ⅜ cents per £		.0037
		4.7994

Nearest standard rate, 4.7995.

§ 67. **Trade bills, documents for payment.**—As already explained (compare § 34), the "documentary payment bill" is a trade bill whose attached documents are deliverable to the drawee only in return for payment of the instrument. Calculation of the buying rate for such a bill is a problem distinct from any considered in the preceding sections, for the reason that it cannot be discounted in England when sent to that country by the bank which has purchased it. This is a matter of the banking custom of England which, it happens, is in contrast with that of the principal continental European countries. It has been stated in another place (*see* § 35) that the acceptor of a documentary pay-

ment bill has the privilege of prepayment under the rebate rate at any time during the life of the instrument. He may also at his own option allow it to run till maturity. The reason why English banks do not care to discount bills of this class is presumably because they do not desire to have among their assets pieces of paper with uncertain dates of payment, though the custom is perhaps in part attributable to the fact that these bills are in general drawn upon persons or firms of lower financial standing than those upon which the discountable classes of bills are drawn. It is true the legal date of maturity of a documentary payment bill is fixed, being commonly a date such and such a number of days after acceptance, and thus the bill has full legal negotiability,[6] but its date of actual discharge depends nevertheless upon the wishes of the acceptor. Also retirement takes place at a rate of discount which is not of the holder's making.

But if the correspondent will not buy this instrument, why not have it sold on the open market. In the first place the bill dealers would not buy what the banks refuse, because they rely so much upon rediscount with the banks. In the second place there is a particular practical difficulty in the way of this plan, which is sufficient to make its rejection necessary. If the bill were sold to any one, the documents would have to accompany it so that he would be able to present them to the acceptor when demanding payment at maturity. But if the bill were to go into the market with documents attached, the acceptor would have to be able to follow it up and locate it in order to exercise

[6] As already indicated (compare §§ 5 and 9), one of the requirements which a bill or note has to meet in order to possess strict negotiability, is that it must be "payable on demand, or at a fixed or determinable future time." There is no reason to suppose that the extra-legal commercial custom of prepayment destroys technical negotiability.

his right of prepayment, and this might be an annoyance to say the least. So the instrument stays with the correspondent bank which first received it from abroad and presented it for acceptance, but stays as the property of the foreign banker who bought it as exchange.[7]

In purchasing this class of exchange, then, the American bank is confronted with the problem that, in general, it cannot be certain whether the bill will remain unpaid till maturity, or will be converted into cash credit upon or some time after arrival. This is a problem because the value of the bill as a purchase on this side of the water differs according to which of these alternatives is realized. Thus, under given circumstances, if the bill were to be retired promptly it might be worth say 4.83, while if it were to be allowed to mature it would be worth perhaps only 4.8240.

The American banker to whom one of these bills is offered by the drawer, may decline to purchase it and may be willing to take it only for collection. If he does purchase, however, the problem of calculating the buying rate is somewhat more complex than in any of the cases we have heretofore considered. A sale by the banker of his own long sterling bill, or again the sale of his sight draft for future delivery, may be involved. For this reason it will be advisable to postpone explanation of this particular calculation until these more technical operations involved have been brought under examination. (*See* § 94.)

Why clean bills alone are discountable in London.—A "clean" bill is one without documents attached, whether it is one originally drawn without documents, or is a documentary bill which has at the time of acceptance been stripped of documents. It is sometimes stated that London

[7] It is difficult to see any positively compelling reason why British correspondent banks should not buy drafts of this kind, the standing of the drawers being assumed, and hold them until payment actually takes place, thus following the custom of continental banks.

discounts only clean bills. This is true, but at first blush appears puzzling because a clean bill would in the abstract seem to be, from the point of view of security, inferior to a documentary bill. The answer to this enigma is not that some of the security must be stripped off a bill before the London market will accept it for discount, but the explanation runs rather in this wise: No bill drawn on England is likely to be discounted in regular course until it is accepted. Documentary bills drawn on banks are always governed by the instructions "documents for acceptance," and therefore always become clean before they become available for discount. Where documentary bills drawn on merchants are under the same instructions, the identical observation applies. Where trade bills are drawn "documents for payment," they do not become clean upon acceptance. This, the only type of bill which is not clean after acceptance, happens to be non-discountable *because of the retirement privilege* which belongs to the drawee. Thus only bills which are clean of documents are in fact discountable.

§ 68. **Selling sight drafts and cables.**—The preceding sections have made it clear that the buying rates for many classes of bills are calculated on the assumption that each purchase of exchange is to have associated with it a simultaneous countervailing sale of sight drafts on the open market by the purchasing banker. If some of these drafts are sold to merchant customers of the banker rather than on the open market, the principle of the calculation remains unchanged. Obviously in practice each distinct purchase need not be accompanied by an individually corresponding sale, it being sufficient for the total of current sales to be kept running on a basis of substantial equality with the total of current purchases. The reasons for the maintenance of this equality as a general policy, were discussed in connection with what we called the rule of equal

sales and purchases. The banker departs from this policy whenever he desires to increase or decrease his foreign balance or other foreign funds, selling less exchange than he buys if he wishes to effect an increase of these funds, and following a reverse plan to produce an opposite result. But even when the equality of sales and purchases is purposefully suspended by the banker, the principle of determining the buying rates remains unaltered. If the banker desires to buy more exchange than he sells, he can obtain bankers' sight drafts at the open market rate. Under the conditions he may be inclined to look upon the purchase of a long bill as a substitute for a purchase of sight drafts on the open market, rather than as an operation to be counterbalanced by a sale of his own sight drafts; but the value of the long bill as a purchase will properly be calculated according to precisely the same method as before. That is, discount, tax, commission (if any), and profit (if any), enter into the computation in the same manner as before. Profit is the only one among these factors about which there might be a question. In his desire to procure exchange, might not the banker sacrifice the profit he ordinarily demands when purchasing certain types of bills? This question ignores the fact that all the bankers' sight drafts needed can be procured at the market rate, if it is a real market rate, and that there is as much reason as ever for exacting the margin of profit that competition tolerates on other classes of exchange. Risk and trouble are the foundations on which this profit rests, and they are the same whether the exchange be bought as a substitute for bankers' sight bills or as cover for a sale of them. If, to reverse the case, the banker is at the moment engaged in selling more exchange than he buys, there is obviously no reason why he should reduce the margin of profit on purchases, and there is no reason why he may expect to secure a larger profit.

While we are seeking to establish the principle that buying rates for leading classes of long exchange are calculable on the uniform assumption of a countervailing sale of sight drafts at the open market rate, we may be required to consider two further questions, namely, (1) what determines the open market rate for sight drafts, and (2) why may not the countervailing sale of exchange take the form of a sale of cables and the buying rate be calculated from the cable rate as basis? The first question can profitably be discussed at length only near the close of the book, but it may be said here that the sight rate itself depends in the end upon the totality of the supply of and demand for *all classes* of foreign exchange as determined primarily by international commercial and financial traffic, and secondarily by exchange investment, borrowing, speculation, and arbitrage, and the export and import of specie.

As for the second question, to wit, why not calculate all buying rates for bills on the basis of the market rate for cables, it must be confessed the thought that the cable rate is the "real" exchange rate, unadulterated by discount or interest, so to speak, is an attractive idea to both the theorist and the banker. But be this as it may, the various long rates (and also the rates for merchants' sight bills, which are sometimes drawn) are tied to the rate for bankers' sight drafts in a way in which they cannot be connected with the cable rate.[8] The spread between a long rate and the sight rate can be calculated at the time of the purchase of the long exchange, from factors which are then all fore-

[8] The rates for documentary payment bills are somewhat loosely related to the sight rate but are still more loosely related to the cable rate. The theorist might express himself figuratively by saying that under normal conditions, when the mechanism of the exchanges is freely operative, the undoubted focus upon which the forces of exchange supply and demand are concentrated is the so-called market sight rate, namely the rate for bankers' sight drafts.

known.[9] Neither speculation nor investment enters in. But the purchase of any kind of bill cannot be counterbalanced by a sale of cables without both a speculation and an investment of funds being involved.[10] And so a banker cannot base his buying rate for long bills upon the cable rate without putting into the spread one speculative element, or one factor that is guesswork. The point remains even if under very quiet conditions the degree of speculation may be slight. Why the speculative factor is necessarily present will be shown in § 155.

The rates for exchange which takes the form of written instruments that have to be transmitted by mail to the place where they are payable, happen then to be more intimately connected with each other than with the rate for telegraphic transfers. The sight rate is basic among this larger group. The sight rate and the cable rate are related, but the spread between them contains an ineradicable speculative element. Whether the cable rate is in some theoretical sense the basic one as between these two, is a question that it is practically idle to discuss. In point of fact the sight rate is not determined by a calculation from the cable rate, but is forged out in the open market between the hammer and anvil of bid and offer. Under ordinary conditions at least, the market would no more think of calculating sight rates from cable rates than the tail would think of wagging the dog.

[9] Assuming the quotation of an "arrival" discount rate.

[10] The exception to this for practical purposes would appear when the place where the bills are payable is so near to the place where they are drawn, that the mail for which the bills are sold can reach the former on the same day as a telegraphic transfer.

CHAPTER X

DEALINGS OF A MORE INVOLVED CHARACTER

§ **69. The bill drawn on a foreign country in home money.** —The foreign bill as heretofore considered in this book has been an instrument calling for a specified sum of the money of the country upon which it is drawn or where it is payable. But a bill may be drawn for a sum of the money of the country of its origin or even of a third country. It now becomes appropriate to examine into these to us new forms of exchange. We may attend first to the bill for a stipulated amount of the money of the country of its origin, or the bill "drawn on a foreign country in home money." Beneath is a specimen, to the order of a fictitious banking institution assumed to have offices both in New York and Rio Janeiro.

$8,206.66 New York, N. Y., July 1, 1917.

90 days after sight of this First of Exchange (second unpaid) pay to the order of the South American Banking Corporation, Eight Thousand and Six Dollars and Sixty-six Cents, United States gold, payable in Brazilian currency at the said bank's drawing rate on the day of payment for sight drafts on New York. Value received per S.S. Southern Star.

BROWN AND COMPANY.

To Gonzales & Gallegos,
Rio Janeiro.

This instrument arises out of a shipment from Brown and Company to Gonzales and Gallegos of goods priced at $8,000, money of the United States, due the exporter in New York on the day of shipment, interest at 6% being

chargeable for any delay in payment. It is understood settlement is to be effected by draft at 90 days' sight (the usual term of drafts of this character on South America), drawn by the exporter on the importer in dollars. The draft is to be payable at the rate in Rio for sight drafts on New York, which means that it is to be dischargeable by the drawee's handing over at maturity a sufficient sum of Brazilian money to purchase, at that moment in Rio, a sight draft on New York for the number of dollars stipulated, in the instance in hand $8206.66. It is the stipulation of the number of dollars of this *return draft*, as we shall call it, which gives the exporter's original bill on Brazil its distinctive character. The object of this stipulation is to throw all risk of exchange upon the importer. The exporter draws for a specified sum of dollars instead of a specified sum of milreis. Were he to draw in the latter form, the proceeds from the collection of the bill might well be used in Brazil to purchase a return draft on New York, but the exact dollar content of this draft could not be foretold, and the exporter would take the risk of exchange.

The sum of dollars named in the exporter's original draft is computed on the assumption that a certain number of days will elapse before the return draft reaches New York, for which interest is chargeable at an agreed rate. That is, the dollars drawn for include the price of the goods, payable as of the date of shipment, plus interest on the same for time to elapse before New York exchange is expected to arrive in final payment. The commission charged by the banker for collection of the exporter's draft is also included, and this is done whether or not the banker subsequently makes an outright purchase of the draft instead of receiving it for collection only. The face value in dollars of the draft of our illustration is computed in the following manner:

Price of goods	$8,000.00
(Under the agreement of sale, this is amount due the exporter as of the date of shipment.)	
Interest on this for 140 days at 6%	186.66
(6% is the rate customary in these transactions.)	
The assumed period of 140 days is based on the following estimates:	
Mail time of draft to Rio ..... 25 days	
Period from acceptance to maturity 90 days	
Mail time return draft to N. Y..... 25 days	
140 days	
Banker's commission at ¼%	20.00
(Taken, as a matter of usage, as ¼% of $8,000, or the price of the goods, instead of ¼% of $8,186.66.)	
Total amount drawn for	$8,206.66

This draft is drawn payable to the order of the South American Banking Corporation either because this institution is to purchase it or to take it for collection. In the one case the exporter will receive $8,000 (or approximately $8,000) of cash on the day of shipment, while in the other his takings will be $8186.66 (or $8206.66 less $20.00 commission) but these will be deferred about 140 days. The life history of the draft will be in its greater part the same under either supposition. The New York office of the South American Banking Corporation will forward it by the earliest mail to the branch at Rio, which will make the presentment to the drawee for acceptance, this being granted, we may suppose, on July 25th, fixing the date of maturity as October 23d. While the draft is drawn for a stipulated sum of dollars, the acceptor could not in regular course make an actual payment of money of the United States to discharge it, such money not being in circulation in Brazil. To meet the requirements of the case the in-

strument itself states the dollars are "payable in Brazilian currency at the drawing rate on the day of payment for sight drafts on New York." "Drawing rate" is but another name for the selling rate of a bank.

At the time of *acceptance* the precise number of milreis that will be required to discharge the bill cannot be foretold. It will depend upon the rate in Rio for exchange on New York at the time of *payment*. There might of course be two or more slightly differing rates on New York at any one time. To obviate the danger of dispute, the bill names the selling rate of the Rio branch of the South American Banking Corporation itself. Should this be 4 milreis per dollar, Gonzales and Gallegos will discharge their acceptance, on October 23d, by the payment of 32,826.64 milreis (4 x 8206.66), written 32,826$640, Brazilian fashion. Upon the receipt of this sum the bank at Rio draws its sight draft on New York for $8206.66 and mails it to the office or branch at New York for the account of the exporter or any party holding from him.[1]

The interest charge in the present illustration was computed on the assumption that 140 days would elapse between the date of shipment and the arrival of the returns in New York. In point of fact the return draft (or ticket of advice which may be substituted for it) might arrive in advance of the assumed date. This would depend upon steamer connections and minor circumstances. The time allowance is made somewhat liberal, but of course cannot be extended too greatly without unfair treatment of the importer. The importer's inpayment of milreis at Rio on the date of maturity of his acceptance, could of course

[1] In the precise case before us the actual return draft would generally be omitted, for the instrument would be drawn by the Rio office of a given bank upon the New York office and in favor of the New York office of the same bank, so that the transaction as between the banks can be settled by the mere interchange of advices and making of book entries.

be converted into dollars of bank credit in New York by a cable order (taking the place of a draft or advice transmitted by mail), but this would be done only in case the exporter's original draft stipulated that the dollars were payable at the cable rate in Rio on New York, which is not customary.

As has been stated, the reason why our exporters insist upon bills in dollars, when drawing upon Brazil, is that they wish to avoid the risk of exchange which would be involved in the issue of bills for milreis. This risk is especially great because Brazil has not as yet definitely adopted the gold standard, and the number of dollars into which a given sum of milreis can be converted is still open to great fluctuations. By drawing for dollars our exporter does not eliminate the risk of exchange from the settlement, but what he accomplishes is to shift it entirely to the importer. He contrives to make determinate the number of dollars received for his goods, this at the expense of making the number of milreis, that the Brazilian will have to pay in settlement, indeterminate until the day of settlement, when it will be fixed by the then current rate in Brazil for exchange on New York.[2]

To carry the argument further, suppose our exporter has quoted the price of his wares as 32,850 milreis, payable 90 days after arrival of a draft for this amount. Maintaining the illustration otherwise unchanged, he would on July 1st draw a 90 days' sight draft for 32,850 milreis, which would be accepted on July 25th and fall due on October 23d. On the latter date this sum of milreis would be paid into a Rio bank for his account. The only use he could make of it—special circumstances apart—would be to have this bank convert it into a dollar draft on New York to be forwarded to him or to his banker in New York.

[2] The Brazilian may, however, make a hedge at any time by purchasing New York exchange for future delivery.

The number of dollars in this draft would depend on the rate of the day in Rio for drafts on New York. If the rate turned out to be 4 milreis per dollar, the return draft would be for $8212.50 (assuming that bankers' commissions are collected in New York); if it turned out to be 4¼ milreis per dollar, the draft would be for $7729.41 which is nearly $500 less. Thus a rise in the rate at Rio upon New York would be unfavorable to the exporter. A reverse movement, it is true, would yield him an extra gain, but he does not desire to take a speculation upon the course of this rate. If he drew at sight instead of at 90 days' sight, the risk would still be present, though the period during which the exchange rate might vary would be 90 days shorter. The question arises, could not the exporter protect himself against the risk of exchange by charging a sufficiently high price in milreis? He could, but this would still leave him involved in the making of exchange prognostications—in a word, in exchange speculations—and whether or not he could get business on this method, it is not in fact usually followed.

Another question presents itself. Might not our exporter quote his price in dollars and draw nevertheless in milreis? Might he not draw for a sufficient sum of milreis to enable the draft to be sold to a bank for the number of dollars due him? The difficulty is that the banks would not care to purchase such a draft at any figure which would make its use worth while. The purchasing bank would then be taking a greater risk of exchange than it cares to. The methods of settlement with Brazil may change in the course of time if Brazil ultimately takes steps to assure the stability of her exchange rate on New York. Absolute stability is not to be expected, but measures might be put in effect to limit fluctuations somewhat narrowly.

The exchange rates of Brazil on gold standard countries have been much more stable in recent years than in earlier

times, the government of the country having made certain partially successful efforts to establish a gold-exchange standard. In 1896 the highest (*i.e.*, dearest) rate in Rio on London was $7^{29}/_{32}$ pence (November 11th) and the lowest (*i.e.*, cheapest) rate was $10^{11}/_{32}$ pence (June 3d). The difference between these two rates is about 23% of their average. This was 17 times greater than the maximum variation in New York rates on London for the same year. The greatest variation of rates in Rio within a period of two weeks in the year 1896, took place between the 6th and 20th of May, and was one of 8.6%. This is practically eight times as great a fluctuation as can possibly take place in any length of time in New York rates on London if the banks in both the United States and England are actually paying gold without premium and if gold can be freely transported, assumptions which have not held good during the present world war.

Brazil has been used merely as an illustration of a country upon which the type of exchange we are discussing is drawn. If an exporter of the United States ships to any part of South America or to most parts of the Far East, and settlement is effected by draft on the importer, the draft is almost certain to be drawn for dollars. But the custom of drawing foreign bills for home money is not confined to this country nor did it originate here. It is followed in a number of the great commercial countries, but presumably first arose in England where exporters have for many years made a practice of drawing on foreign lands in pounds. As early as 1854 we find the London *Economist* advising British traders to draw on Russia in sterling because of the issue of inconvertible paper by that country in connection with the Crimean War, and the consequent expectation of instability in its exchanges.[3]

[3] Mentioned in Clare's "A B C of the Foreign Exchanges," p. 65, note.

§ 70. The banker's buying price for such a bill.—In naming a buying price for the bill considered in the preceding section, the bank *does not quote a rate of exchange.* It does not buy an instrument payable in a fixed sum of foreign money but one promising to return a predetermined amount of home money. It pays dollars and gets back a foreknown sum of the same dollars.[4] It does not buy one kind of currency for another and foreign kind. It should be noted that the amount for which the bill is drawn is not the datum from which its price is calculated, but reversely the price is first known and the amount for which it is to be drawn is computed from this datum. That is, continuing the illustration of the preceding section, the drawer is first of all entitled to receive $8,000 and the question becomes, how large is the sum of dollars for which the bill must be drawn to make it worth $8,000 to the banker as purchaser. The answer is $8206.66.

Interest and commission are the factors in the computation. The banker pays dollars in advance and awaits the return draft for dollars. In this class of operations 6% is the customary rate of interest charged (without regard to the current money market) for the period expected to elapse before the return draft will arrive. The charge for commission we may assume to be ¼ of 1%.

The computation takes the following form:

Draft on Rio at 90 days' sight.	
Banker's buying price for the bill.....	$8,000.00
Banker's interest charge on this for 140 days at 6%	186.66
Commission	20.00
¼ of 1% of $8,000 = $20.	
Total required return	$8,206.66

Thus the bill will have to be drawn for $8206.66, and the

[4] Assuming of course that the bill is honored.

Brazilian drawee will have to pay a sufficient sum of milreis to purchase a sight draft on New York for this number of dollars. The importer will be able to take possession of the goods on their arrival because in the case of exports to South America custom requires the instructions, "documents for acceptance." Prepayment of the draft with a rebate of interest is thus unnecessary.

The banker's account with this operation will stand as follows:

Outlay		$8,000.00
Return, after 140 days		8,206.66
Excess of return		206.66
This consists of		
Commission	20.00	
Interest on $8,000 for 140 days at 6% p.a.	186.66	
Total	206.66	

In the preceding calculation it has been assumed that the banker is willing to purchase the exporter's bill on the basis of 6% *interest* rate, that is to purchase it at a price which yields him 6% interest on his advance for the assumed term of the advance. If, however, the 6% rate quoted is a *discount* rate, as is sometimes the case, the bill as drawn will not sell for quite the full $8,000 due the drawer, but will fetch a price computed as follows:

Future sum, or returns from the bill, 140 days deferred	$8,206.66
140 days' discount on this sum at 6% per annum.....	191.49
($^{140}/_{360}$ of 6% of $8,206.66 = $191.49)	
Gross price of bill	8,015.17
Commission due banker	20.00
Net price received by drawer	$7,995.17

To avoid the loss of $4.83 here entailed, the exporter may draw the bill for a sufficient sum of dollars to make it yield $8,000 when discounted at 6%. The method of figuring the amount for which he must draw in this case, is shown beneath.

$^{140}/_{360}$ of 6%, or the percentage of discount for 140 days = $2\frac{1}{3}\%$

The price of the bill will therefore be $100\% - 2\frac{1}{3}\%$ of the face value or amount drawn for, or..... $97\frac{2}{3}\%$

Since the price of the bill including commission is to be $8,020, $8,020 must be $97\frac{2}{3}\%$ of the amount drawn for.

The amount drawn for must therefore be..... $8,211.60

(Divide $8,020 by $97\frac{2}{3}\%$ to find 1% and multiply by 100)

This is the amount, of which $97\frac{2}{3}\%$ is just $8,020.00. To complete the account:

Discounted present price of the bill.....	$8,020.00
Commission paid banker	20.00
Net cash proceeds from sale of bill.....	$8,000.00 [5]

§ 71. The bill on a foreign country in money of a third country.—

SUB-SEC. 1. A THIRD TYPE OF DRAFT OF THE IMPORTER. —Thus far we have familiarized ourselves with two classes of drafts on importers, distinguishing them in accordance with the kind of money in which they are drawn, namely drafts.

[5] Compare § 14 on the distinction between an interest and a discount rate. The computation as given assumes that the banker will collect his commission of $20 in advance (just as, by exacting discount, he virtually takes interest "in advance"). If it is desired to calculate the amount to be drawn for on the assumption that the banker takes his commission 140 days later or from the returns, it will be necessary to find the amount which being discounted for 140 days at 6% per annum will yield $8,000 present cash, and to add to this $20. The answer would be $8,211.12.

(1) for the money of the importer's country, and

(2) for the money of the exporter's country.

It remains to examine the draft

(3) for the money of a third country.

Bills on the Far East and on the various countries of Latin America drawn in pounds sterling, but originating in some country distinct from England, stand forth as the chief practical examples of this form of exchange. If a bill is drawn for money of a third country, it is almost certain to be for money of England, whether or not this will always continue the case.

Let us suppose Smith of New York ships hardware to Lopez of Buenos Aires, on the understanding that as exporter he is to receive $7,200 in money of the United States on the date of shipment, to be obtained by the sale of his bill on Lopez drawn for a sum of pounds sterling. The face value in sterling will then need to be high enough to enable the sale of the bill for $7,200 in New York on the date when it is drawn. Whereas a dollar draft on Buenos Aires would be dischargeable by the purchase and return of a bill on New York for dollars, a sterling draft on the same city is paid off by the purchase and return (either to New York or to London on instructions from New York) of a bill on London for pounds. The "return" bill, as we shall continue to call it, will be according to custom at sight when it is on New York, but at 90 days' sight when it is on London, not that return bills [6] of other lengths of life are out of the question.[7]

[6] As stated on an earlier page, we have now (1919) in the United States practically discontinued drawing this type of bill. The war-time fluctuations of the value of the pound sterling in terms of the American dollar, is of course the explanation. Some of our bankers believe this instrument will never come back into our trade even when the pound sterling of actual currency becomes a gold unit again. Cf. Addendum *infra* on dollar exchange.

[7] Drafts from the United States on Australasia for sterling have

The draft of Smith on Lopez will take on some form similar to the following:

£1,541 5s. 0d. New York, N. Y., July 1st, 1913.

Ninety days after sight of this first of exchange (second unpaid) pay to the order of the South American Banking Corporation, One Thousand Five Hundred and Forty-one Pounds and Five Shillings, payable in legal currency at the bank's drawing rate on day of payment for ninety days' sight bills on London. Value received per S.S. Southern Star.

WILLIAM N. SMITH.

To Alfredo Lopez,
Calle Corrientes, 1550.
Buenos Aires, Rep. Arg.

SUB-SEC. 2. THE THREE NATIONAL CURRENCIES INVOLVED.—Although a certain number of *dollars* are due and will actually be received by the drawer of this draft, and *pesos* will be the money actually paid over by the drawee to discharge it, the only sum specified in the instrument is a number of *pounds sterling*. Three distinct national currencies are then involved. As for the relations among them: the number of dollars due the exporter (in conjunction with a rate of exchange) determines the amount of sterling drawn for, and the latter in turn (in conjunction with another rate of exchange) determines the number of pesos required to pay off the draft.

Assume that the bill set forth above is sold on July 1st to the New York office of the South American Banking Corporation for $7,200. The receipt of this sum pays the exporter for his goods. The New York office of the bank named now forwards the instrument to the branch at Buenos Aires, whose province it will be to present the same for acceptance and subsequently for payment. Ninety

been customarily drawn at sight and have also called for the return sterling bill at sight.

days after the date of acceptance (there being no days of grace in Latin-American countries) the drawee will be obligated to pay over a sufficient sum of pesos to buy at the selling (or "drawing") rate then being quoted by the South American Banking Corporation in Buenos Aires, a 90 days' sight draft on London for £1,541 5s. In substance, he will purchase a draft drawn by this bank on a London bank, but will turn it back to this institution as holder of his acceptance and in discharge of the same. If the rate for this draft proves to be 48d. (namely, 48d. of sterling to one peso) it will cost the importer 7706.25 pesos, signifying pesos of gold. There is also in the Argentine a national legal tender paper money. Assuming this to be at its official redemption value in gold (one peso of paper to 44/100 of a peso gold), 17493.19 pesos of paper would be required.

SUB-SEC. 3. THE DISPOSAL OF THE RETURN DRAFT.—The return draft now belongs to the New York office of the South American Banking Corporation, inasmuch as this office paid for the original bill drawn by the exporter. It must be admitted that this draft can under certain circumstances be eliminated, to be replaced by mere book entries at the branches supplemented by interchange of advices, but we had better complete our illustration on the assumption that it is actually drawn and mailed, as it would be were there, for instance, three independent banks at the three main points involved. The best disposition of this instrument the New York office can order is its remittance directly to London for its account or credit with some banking establishment there. This saves the time that would be lost by having it go to London by way of New York, and will enable its acceptance and consequently its maturity to occur at the earliest possible dates.[8] The New York

[8] If a South American banker who holds a long sterling bill for a New York bank, is requested to forward the instrument directly to

banker will ordinarily have the draft discounted in London on its arrival, and may, about six days earlier, sell sight sterling in New York against the proceeds of the same as cover. In analyzing the whole operation before us, we assume this sale to be made, for it is solely on this assumption that we can compute the bank's gain. When it buys the exporter's original draft, it makes an outlay of dollars to obtain a deferred return of sterling in London. The dollar worth of this sterling must always be counted as the sum it will fetch when sold out as promptly as possible as exchange on the New York market. By means of such a sale the New York banker finally recovers the dollar fund first laid out, normally with a sufficient increment to cover interest and a commission or profit.

SUB-SEC. 4. THE RISKS OF EXCHANGE AND THEIR INCIDENCE.—The owner of the original exporter's draft (the bank in New York, if it buys the draft, the exporter himself, if the bank receives it merely for collection) takes a risk of exchange. For at the time this instrument is drawn the outcome in dollars from the sterling exchange returnable from Buenos Aires cannot be precisely foretold. The chance thus taken is called a "risk of exchange" because the outcome will depend on a rate of exchange, namely the rate for sterling in New York on the day of the sale of the sight sterling draft in that city against the arrival of

London, he makes it payable to and mails it to the New York bank's London correspondent, accompanied by the advice that it is for the account of the New York bank. The bill cannot be drawn or indorsed payable to the New York banker, because it would then require his indorsement, whereas it is not to go through his hands. The London correspondent will indorse it and dispose of it according to instructions from New York. This will make the London correspondent liable as an indorser. It is understood that if this liability should ever cost it anything, it would look to the New York banker for reimbursement since it indorsed for his sake and as his virtual agent.

the return bill in London. (The outcome will, under the conditions of our illustration, depend also in part upon the money rate ruling in London on the day of the discount of the return bill in that city. If the latter could with advantage be mailed from Buenos Aires to New York to be sold as long sterling at that point, the outcome would then, of course, depend merely upon the long sterling rate prevailing then and there, but this would in turn be governed in part by the London discount rate.)

But the risk of exchange taken by the exporter or banker of New York is merely one as to the rates for sterling in New York. Neither will have concern with any fluctuations which may take place in the rate for sterling in Argentina. The more hazardous risk of exchange resident in these fluctuations, is carried solely by the importer in Argentina.

When after the inception of the present great war, rates for sterling exchange fell away in New York, outstanding sterling drafts on South America began to bring in very disappointing returns in dollars. The considerable period to run between the inception and the settlement of operations naturally increased the difficulty, and there were forced upon either the drawers or the bankers, as the case might be, certain most annoying losses. (A banker purchasing such a bill may make a special contract forcing the risk of exchange back onto the drawer or exporter.) Prior to the war the risk of exchange involved in the handling of these bills was not excessive. Also practical compensation for carrying it was secured in a somewhat hidden manner by means of a rather liberal method of figuring the amount of sterling to be drawn for.

Sub-Sec. 5. Computing the Sterling Face Value.—To determine the amount of sterling for which he must draw, it would be natural to suppose the exporter would ascertain from the bank its buying rate in dollars per pound for such a draft as he proposed to offer. From

this he might compute the pounds of face value necessary to yield the number of dollars due him. Thus should the banker's rate be $4.67¼ per pound, the draft would have to be drawn for £1540.93 (or £1,540 18s. 7d.) in order to fetch $7,200. Under this plan, the exporter would *in effect* make the following statement to the importer: "I have this day drawn upon you at 90 days' sight a bill which you can discharge at its maturity by the purchase of a 90 days' sight draft on London for £1,540 18s. 7d. I am entitled to receive $7,200 to-day and since the banker at this place offers $4.67¼ per pound for my bill I must necessarily draw for the number of pounds above mentioned. 7,200 ÷ 4.6725 = £1540.93."

But this, the simplest method of computing sterling face value that could be followed, is not the one that has been actually customary. Before the present time banks of British origin have handled most of the bills drawn in this country upon South America, and it has been the practice in dealing with these banks for our exporter to add interest and banker's commission to the dollars that are due him as of the date of shipment, and convert the total into sterling at a fixed and customary rate depending upon the term or usance of the return sterling draft. With the latter at 90 days' sight, the regular rate of conversion was (prior to the present war) $4.80 per pound: with it at sight, this rate was $4.85, but these particular rates have of course all gone by the board since the outbreak of the war.[9] At the end of 1918, a conversion rate of 4.75 was being employed in certain trades for return sterling drafts drawn *at sight*.

Smith's bill on Lopez, as given at the beginning of this section, is drawn for £1,541 5s. 0d. This sum is computed according to what has just been explained as the customary

[9] The rate of conversion has been fixed or invariable except for momentous alterations of exchange conditions.

method. To the number of dollars due Smith on the day of shipment, namely $7,200, is added interest at 6% per annum for 150 days, and banker's commission at ¼ of 1%. The total thus obtained, still a sum of dollars, is "converted" (*i.e.*, translated) into sterling at the rate of $4.80 to the pound. The amount of sterling so computed, is the face value of Smith's draft on Lopez, and is the face value of the 90 days' banker's draft on London which Lopez is required to provide for return to Smith or his successor in ownership of the original draft. Smith's computation takes the form shown beneath:

Invoice cost of goods including all charges due exporter. Due in New York on July 1st.....	$7,200.00
Interest on the above for 150 days at 6% per annum..	180.00
6% per annum is the rate of interest customary in settlements of this kind.	
The period of 150 days consists in the following allowances for elapsed time:	
a. Mail to Buenos Aires ..... 30 days	
b. Term from acceptances till payment of exporter's draft ..... 90 days	
c. Return mail to New York..... 30 days	
Total .....150 days	
Banker's commission for handling draft, at ¼%.....	18.00
Total dollar return required in New York after the expiry of 150 days	$7,398.00
Number of pounds face value of return sterling bill therefore required, at rate £1 = $4.80.....	£1,541¼
I.e., 7,398 ÷ 4.80 = 1,514¼.	

The assumptions underlying this calculation are (1) that 150 days will elapse between the drawing of the original draft and the realization or recovery of dollars in New York from the return sterling bill, and (2) that the amount

realized from each pound of this return bill will be $4.80. It happens, as already explained, that if Smith's original draft is sold to a banker the return bill will not in fact come to New York, but will be forwarded from Buenos Aires direct to London, for the purpose of saving time; but to make as clear as possible the customary computation, with which we are now concerned, let us suppose for the moment that the return bill is sent to New York. If upon its arrival it could be sold in the exchange market for $4.80 per pound, it would yield just $7,398. Thus it would be the equivalent of a New York check for this sum, and this sum includes the $7,200 due as of the date of July 1st, plus $180 for interest and $18 for banker's commission.

SUB-SEC. 6. COMPARISON WITH A MORE FAMILIAR METHOD OF SETTLEMENT.—It will be useful to compare this method of settlement with a simpler and more familiar but essentially similar one. A buyer in Denver of goods from New Orleans might make payment to the shipper by remitting a banker's sight draft on New York. The shipper would "cash" this in New Orleans. In other words, he would sell this New York exchange for money of New Orleans. Now the case is not so dissimilar if an importer in Buenos Aires makes payment to the exporter at New York by remitting a banker's draft on London, to be sold for local money of New York. It is true certain complications in detail appear in the foreign transaction. The New York exporter draws on the Argentine merchant a draft which specifically calls for the return sterling bill. The shipper at New Orleans may not draw on the Denver buyer at all, being content merely to render him a statement of account and expect him to make a remittance in some suitable form of domestic exchange. But if the domestic shipper did draw, the draft would in all probability be one for dollars merely and not one for a specified kind of return exchange. That is to say, a draft in the special

form of one payable in exchange or of one calling for a return bill of exchange of a stipulated character, is exceedingly uncommon in domestic practice. Under our past custom the domestic shipper would not draw a long-term draft, but rather one at sight or perhaps three days' sight, while the exporter to foreign parts will as a rule draw a long-term bill. However, it is very probable that the long-term draft on the domestic mercantile debtor is about to play a rôle of increasing significance in our internal commerce, this development being especially favored by the recent important changes in our banking system. In the particular foreign illustration before us, the return bill remitted to the exporter (or to the banker who succeeds to him or to this banker's correspondent in London, as the case may be), is itself a long bill. Such a form of remittance finds no counterpart in our purely domestic commerce to-day. Comparison might be carried further, but enough has been said to show that our settlements by sterling drafts on South America are not so complex as perhaps they seemed at first. When our exporter converts or translates his invoice plus interest and banker's commission, into sterling at the rate of £1 = $4.80, it is merely tantamount to counting £1 of 90 days' sight draft on London as the equivalent of a New York check for $4.80, on the theory that $4.80 can be realized from the said £1 of exchange.

Sub-Sec. 7. The Outcome to the Purchasing Banker. —Let us assume that Smith's personal standing being satisfactory, he is able to sell his bill to the banker in New York for $7,200, the amount due Smith as exporter if he receives payment on the day of shipment. How will the banker fare as purchaser? Suppose first, for the sake of simplicity, that the return sterling draft is ordered sent to New York, and that 150 days elapse before its arrival, and that it is then sold in New York for $4.80 per pound.

The banker's account with the operation would assume this form:

Outlay for the bill		$7,200.00
Return from the same, 150 days later		7,398.00
Procured by the sale of £1,541¼ of 90 days sterling at $4.80 per pound.		
Excess of return over outlay		198.00
Being made up of		
Commission at ¼% on $7,200	$ 18.00	
Interest on $7,200 for 150 days at 6% per annum	180.00	
	198.00	

Here the bank makes its commission and interest at 6% per annum.

But the banker can put forward the recovery of dollars by about a week (in the instance before us) by having the return sterling bill forwarded direct from Buenos Aires to his correspondent in London. This alone will make the operation yield a better interest rate than the one shown in the foregoing statement. Again, the banker may be able to realize more than $4.80 from each pound of the return draft. If we assume an extremely favorable outcome, we might be able to make up a statement somewhat on the lines of the following:

Outlay to purchase exporter's bill on July 1st	$7,200.00
Actual time elapsed before recovery of dollars in New York	134 days

The original bill reaches Buenos Aires 25 days after July 1st, is paid 90 days later, and the long sterling bill sent directly to London reached there 25 days later yet. Total time to London, 140 days.

The return sterling draft arrives in London, therefore, on November 18th. It is immediately discounted there on orders given in advance. This

enables a sale of sight bills on London in New York 6 days earlier, on November 12th. These are for the amount of cash sterling received from the discount.

Total elapsed time till recovery of dollars, 134 days.

Dollars recovered per pound of draft	4.8330

If the London discount rate is 3% and the sight sterling rate in New York on November 12th is 4.87, the banker will be able to realize about $4.8330 for each pound of draft discounted in London. (Cf. § 64 for method of computing this.)

Total dollars actually recovered by banker		$7,448.86
4.8330 × 1541¼ (pounds face value of draft) = 7448.86		
Gain by banker		$ 228.86
Composed of the following elements:		
Commission at ¼%	$ 18.00	
Interest at $7,200 for 134 days at 6%	158.60	
Gain in excess of 6% interest	52.26	
Total	288.86	

Stated in another way, the banker makes interest at 8% per annum in addition to his commission, but this is virtually the most favorable case possible. Mails may be slow. Acceptance may be delayed (especially in South America) till the merchandise arrives, perhaps by a slow steamer. The customary assumptions as to the time to elapse and the dollar value of the return sterling draft, must be sufficiently liberal to provide against losses in the general run of cases, though they are doubtless hardly liberal enough to afford full protection in a few of the worst cases actually experienced.[10]

[10] As already stated, heavy losses were experienced by the buyers of these bills at the time of the great fall of sterling in New York not long after the beginning of the great war.

SUB-SEC. 8. SPECIAL CONTRACTS WITH RESPECT TO THE RISK OF EXCHANGE.—The exporter, in the illustration before us, calculated the sterling face value of his draft on the assumption that each pound drawn for would in the end yield $4.80. The banker paid $7,200 for the draft on the same assumption. Sometimes the banker requires the exporter to make a special contract promising to indemnify him, the banker, for any loss sustained through his inability in fact to realize $4.80 per pound. This contract has the effect of throwing upon the exporter any unfavorable risk of exchange involved in the purchase of his draft (*see* prior discussion). On the other hand, if the risk turns out favorably, that is, if each pound yields more than $4.80, the gain will belong to the banker unless the special contract provides that it go to the exporter. It would be possible to have a special agreement providing for the compensation of the banker for loss because of a failure of the returns to arrive within the period of 150 days assumed, but if the purchase of the exporter's draft by the banker should be cluttered with so much incidental protection, it would virtually come to a taking of the draft for collection coupled with a 100% advance against it as collateral.

SUB-SEC. 9. THE IMPORTER'S PREFERENCE FOR THE CUSTOMARY RECKONING.—The actual elapsed time and actual dollar yield of the return draft are variables depending upon the circumstances of each individual case. They cannot be determined precisely in advance, and under the customary method there is no attempt to make a special estimate of these factors for each separate case. It is very convenient to assume fixed figures which are to be used in all ordinary instances. If special figures were to be adopted for each separate export, the importer would either have to be informed of them and given an opportunity to concur in them, which would be impracticable by mail, or he would have to submit to their determination by the exporter or

the banker, neither of whom have interests in the matter identical with his. So, as we are given to understand, he prefers to have the dollar charges against him converted or translated into sterling at a customary rate and to have the interest figured at a fixed rate under the assumption of a fixed period for completion of the settlement. This enables him to calculate in advance with perfect definiteness the amount of sterling he will be expected to provide against a given dollar cost for goods, and leaves him with but one uncertain factor, namely the rate for sterling in his own city at the time when he comes to make payment. The problem of establishing the customary figures is one of making them sufficiently liberal from the point of view of the exporter and the banker who buys his draft, without making them unfair to the importer. If, for example, speaking of ante-bellum conditions, it were to be assumed in the case before us that 200 days would be the elapsed time and that $4.76 would be the dollar yield of each pound of the return draft, there would be an increased margin of safety for the benefit of the drawer and purchasing banker, but the assumptions would evidently be unfair to the importer. The assumptions that had in fact become customary or standardized before the war were known to the importers of South America and were acquiesced in by them, and according to Mr. Fred C. Harding, of the Anglo South American Bank, Ltd., these merchants did not take kindly to the adoption by our exporters of other methods of computation, even if they turned out quite as favorably to the importer as the customary.[11]

SUB-SEC. 10. PURCHASING THE DRAFT ON THE BASIS OF A DISCOUNT RATE.—It has been assumed up to this point that the banker buys the exporter's draft on the basis of a 6% *interest rate,* or at a price calculated to yield him 6%

[11] *See* his article on the Financing of Exports in the "Exporters' Encyclopedia" for 1914, pp. 101–2.

interest. If, however, he insists on making the 6% a discount rate, the price he will pay for the instrument will be somewhat reduced. Should the exporter desire to avoid the loss that will be occasioned by this change, a loss of something over $6 in the case in hand, he will have to increase the amount for which he draws by approximately the sterling equivalent of this sum. In a case of discount, the exact computation should take the following form. (It will be assumed that the banker will take his commission "in advance," just as by taking discount he takes "interest in advance.")

Dollars due exporter	$7,200.00
Commission of banker, ¼% on the above	18.00
Necessary present price of bill inclusive of commission	7,218.00
Dollar returns deferred 150 days which will discount for this sum	7,403.08

Found as follows:

150 days' discount at 6% per annum = discount of 2½%

2½% of the assumed future return in dollars being taken out of same as discount, the present dollars = 97½% of the future sum

Therefore $7,218 = 97½% of future dollars.

If $97½\% = \$7{,}218$, $100\% = {}^{100}\!/_{97.5} \times 7{,}218 = 7{,}403.08$

$7,403.08 converted to sterling at rate of 4.80 ..... £1,542.31

Face value of the draft, £1,542.31 (£1,542. 6s. 2d.).

The accompanying statement to the importer might be made up as shown below.

Amount due exporter at date of shipment	$7,200.00
Commission to banker, at ¼%	18.00
Discount charged by banker	185.08 [12]
	$7,403.08

The above converted to pounds at rate, $4.80 = ...£1,542 6s. 2d.

[12] Instead of $180.00 interest as shown in computation on p. 291.

SUB-SEC. 11. THE REASON FOR STERLING DRAFTS ON OUTLYING COUNTRIES.—Since drafts from the United States on outlying countries for dollars are simpler and involve one less risk of exchange than drafts for sterling, the question arises as to why the latter alone have been customary until very recent times. The answer is found in the first instance in the fact that prior to the great war there was in general no regular or established market for New York exchange in the trade centers of these outlying countries. Therefore the importers located at these points were unwilling to be drawn upon in a manner obligating them to purchase and return New York or dollar drafts. They were, however, able and willing to buy sterling bills for remittance to this country or to London for its account. The established markets for sterling exchange which made this feasible, were the products of the large and long continued direct trade of the British with these outlying countries and of the extensive banking business conducted by British controlled capital in them. Thus previous to 1914, bills drawn in the United States on South American countries, South Africa, India, Australasia, and the Orient, were usually drawn in sterling.[13] Since 1914 the American practice of drawing upon non-English countries for sterling has been virtually abandoned. Not long after the outbreak of the war, rates for sterling exchange fell away in New York in a manner quite without precedent. They remained uncertain until the middle of January, 1916. From that time until

[13] In cases where the importers in these countries provide our exporters with sterling letters of credit, the drafts of the exporters are drawn direct upon London banks. These are, of course, sterling drafts, but are not the type of drafts of which we are now speaking. Our exporters would always prefer to have sterling letters of credit provided for them rather than to draw upon the importers themselves, even in sterling. The reason why the use of the letter of credit is not universal is primarily because of its expensiveness to the importers.

March 20, 1919, they possessed an extraordinary stability, the cable rate having been "pegged" at practically 4.76. During the period of the instability of sterling in our market, the draft on outlying countries for sterling returns became from our point of view anything but a suitable method of settlement. During the same period our trade with these countries gained in relative importance, some moderate beginnings in the establishment of American branch banks in foreign parts took place,[14] something of a market for exchange on the United States began to develop here and there, and in the case of exports to South America and the Orient drafts for dollars, or for return drafts on this country, began to make their appearance. Drawing for dollars upon British dominions such as Australasia and South Africa, has not however become the practice.[15]

SUB-SEC. 12. CONCERNING THE USE OF A LONG-TERM RETURN DRAFT.—Although in some trades return sterling bills *at sight* predominate, and in our trade with Latin America such bills were to be found, in the latter trade return sterling drafts at 90 days' sight have been commonest under normal conditions. The question occurs as to what difference it makes whether such drafts are at this long usage or are at sight. It makes in normal times no great difference to the exporter or to the bank in the United States which buys his bill, because the amount drawn for in either case is calculated to yield a predetermined sum of dollars in New York, a certain number of days after shipment (as 150 days [16]), the number of days being the same whether the

[14] One American institution, the International Banking Corporation, had, however, established branches in many of the outlying countries prior to this time.

[15] This is explained by one banker as being due, at least in part, to the determined opposition of the local British banks to any such development.

[16] That is, 150 days in case of shipments to Argentina, and other longer or shorter periods in cases of shipments to other countries.

return draft is at sight or at usance. If a long bill is remitted it does not (under conditions when it can be and is discounted in London) yield a *later* return of dollars than a sight bill, but merely a *reduced* return in dollars *per pound.* There is, however, a little more speculation involved in drawing for the remittance of a long bill since in this case the actual dollar outcome will depend in part upon the position of the London discount rate, a variable, whereas the dollar value of a return bill at sight will have no direct dependence upon this factor.[17]

Considering now the interest of the importer in the question whether the return bill is to run for a term or to be at sight, he may benefit substantially from being drawn upon for a long-term return bill instead of for one at sight provided he is able to make certain arrangements with the banker in his city who presents the exporter's original draft to him for acceptance and subsequently for payment. In our illustration (page 286), the branch of the South American Banking Corporation at Buenos Aires presents the exporter's draft to Lopez, the importer and drawee. This draft itself runs at 90 days' sight. It is so drawn that it can be discharged at its maturity by the purchase and return of a 90 days' sight banker's bill on London. This bill is to be bought from the banker that holds the original or exporter's own bill. Thus on the date of maturity of the latter instrument Lopez is required to obtain from the South American Banking Corporation at Buenos Aires its 90 days' sight bill on a London bank. The question is, will he have to make actual payment (in local money, or pesos, of course) for this bill *at this time.* The Banking Corporation will not have to provide cover in London until the maturity of the bill, 93 days after its arrival in that city. If it procures this cover

[17] There is an indirect relation between the position of the London discount rate and the rate for sight drafts on London in New York. Compare § 144 below.

in Buenos Aires (the normal assumption) it may wait about 90 or 93 days (depending upon steamer dates) before buying it in, if it acquires sight drafts on London as the cover, and about 20 or more days longer if it buys in cable transfers for the purpose. Might not the bank then permit Lopez to postpone payment to it until the time arrives for the purchase of this cover? If Lopez has sufficient standing and is able to put up acceptable collateral, the bank may for a commission extend him this service. Without the service, Lopez will be required to pay over pesos on the date of maturity of the draft drawn on him: with it, the evil day may be put off. Suppose it is put off, and cables are bought in as cover on the latest day that is safe. Lopez will then not furnish actual local money (in real payment for the imported goods) until perhaps 115 days after the maturity of the draft on him! The postponement will cost him something—in addition to the special commission he must pay—because the cable cover will cost more per pound than would the 90 days' sight bill if bought outright in the first place. This is in the nature of an interest cost. Will the postponement at this cost be a benefit to Lopez? Yes, because the cost will be substantially at a rate of interest equal to the London discount rate on banker's acceptances, perhaps 4% per annum, plus commission, while money is worth perhaps 8 or 10% per annum locally. So when the importer secures an extension of time in this manner, which is possible only when the return bill runs for a term, he enjoys the privilege of virtually borrowing money at London rates and at half the interest cost of local rates. This is a complex subject, and it may well be that extended explanation ought to be offered, but the limitations of space forbid a more thorough discussion. There is no grant of a bank credit to a merchant or letter of credit involved in this case, but the service given by the bank at Buenos Aires in this illustration is

closely analogous to that given by the bank which writes a letter of credit for an importer and permits him to postpone settlement until the time when cover for the long draft drawn under the letter must be bought in.[18]

SUB-SEC. 13. HOW LONDON INDIRECTLY FINANCES THE ARGENTINE IMPORT.—Some London bank or acceptance house accepts the 90 days' bill originating in Buenos Aires, and the instrument is then discounted in the London money market. As the saying goes, the London money market makes an advance upon it of 93 days. The common supposition is that this advance aids in financing the shipment of goods in connection with which the instrument that is discounted originated, and this supposition is correct. It is said that London helps finance international trade the world over. The case in hand is merely one example. Whenever New York develops a similar acceptance and discount business it will be engaged in extending a like service to the commerce of the world. To cut short a story that might be told at considerable length, the effect of the London discount in the instance of our present illustration is to enable Lopez to postpone payment in pesos for the goods which he has imported, about a quarter of a year longer than if he had been compelled to buy a return sight bill on England. And this postponement by Lopez does not make necessary any postponement of the day when the New York bank, which purchased the exporter's bill, is enabled to recover the dollars which it laid out. The latter institution is able to realize upon the discounted long bill *as early* as it could upon one drawn at sight, while Lopez postpones payment a quarter of a year longer because of being permitted to return a 90 days' bill.

Lopez is then in the case before us the ultimate beneficiary of the London money market's advance. Some money

[18] Compare especially § 44.

dealer in London voluntarily pays out present money and waits a quarter of a year for its return—reaping a reward of discount or interest—and this enables Lopez in far-off Argentina to postpone payment for his imported goods a quarter of a year longer than otherwise. To *finance* or help finance any undertaking means to aid it by paying out present funds and awaiting a deferred return. So London helps finance the import into Argentina. If the Argentine bank should refuse to give an extension of time to Lopez until cover for the same bill must be bought in, it, instead of Lopez, would be the beneficiary of the advance.[19] If the New York bank or banking agency should invest in the long sterling return bill, it would assume the burden of the advance instead of some dealer or bank in London.

SUB-SEC. 14. INSTRUCTIONS AS TO DRAWING ON SOUTH AMERICA.—The following memorandum has been issued by the New York agency of a certain British Bank.[20]

Instructions to Drawers

1. In drafts drawn for pounds sterling, the following clause should be inserted: "Payable at the drawing rate of the ..... Bank for 90 days' bills on London at date of maturity."

2. Drafts drawn in dollars on Argentina should contain the clause: "Payable in Argentine gold currency at bankers' rate for sight drafts on New York."

3. Drafts drawn in dollars on Uruguay should read: "Payable in gold currency at bankers' rate for sight drafts on New York."

4. Drafts drawn in dollars on Brazil should have the clause: "Payable in Brazilian currency at bankers' rate for sight drafts on New York."

5. Shipping documents accompanying time drafts will in every

[19] Considerations of space forbid making so complete an analysis of this problem that answers will be given to all the questions the inquiring reader might ask.

[20] Reproduced in "Foreign Credits," by Archibald J. Wolfe, Department of Commerce and Labor, Special Agents Series, No. 62, 1913, pp. 399–400.

case be delivered to drawees against acceptance. If payment is required upon delivery of documents, the draft must be made "at sight."

6. All drafts, the acceptance or payment of which is refused, will be protested, unless special instructions to the contrary shall have been given. The bank will not undertake legal proceedings without being so instructed and secured as to the payment of all charges.

7. Drawers in the United States having agents in any of the countries named are requested to notify the bank in writing as to what authority said agents hold in the matter of extension of time of payment of drafts, delivery of documents, etc. No instructions by telephone will be accepted.

8. Drawers should authorize the bank to receive payment for time bills, if tendered before maturity, stating the rate of discount to be allowed for their account to drawees.

9. Drafts with documents must be delivered at least two hours before the closing of the mail by the steamer taking the goods drawn for.

Specimen of instructions to be attached to drafts

[To be detached before presentation; strike out the instructions not required.]

To ..... (Ltd.), its head office, branches, agencies, and correspondents.

Instructions to be observed in reference to draft on .....

£ .....

Present on receipt.

1. Present on arrival of vessels carrying the goods, or..... days after receipt, whichever event shall first happen.

2. Deliver documents to drawee on ..... [acceptance—payment] of draft.

3. In case of need refer to ....., of .....

4. The "in case of need" is hereby fully empowered to instruct you as to treatment of draft, whether by variation of the terms thereof or otherwise, and disposal of shipping documents or realization of goods, or the variation or cancellation of any preceding clause, and you are hereby authorized to follow his direc-

tions as to dealing with the goods, documents, and draft in any manner whatsoever.

5. Protest for nonacceptance.

6. Protest for nonpayment.

7. It is understood that the negotiating bank or its agents have the power to decline to surrender documents unless on payment.

8. Rebate at the rate of ..... percent per annum may be allowed if paid before maturity.

(Signature) .....

§ 72. **The bill with an interest clause.**—In domestic commerce a price is often quoted as payable a specified period after the shipment or delivery of goods, without the addition of interest for the delay in payment. But if there is coupled with such a quotation an offer of a reduction or concession for immediate payment, the price itself in reality contains an interest charge. Such offers are very common and usually take the form of a "discount for cash" at a designated rate per cent. If an article is priced at $50 "terms 60 days, discount for cash 2%," a buyer that takes the 60 days time pays interest at the rate of more than 12% per annum. For should he make immediate payment the article would cost him $49 instead of $50, and in effect he pays $1 of interest to postpone by 60 days the delivery of $49. This is interest at the rate of 2.04% for one-sixth of a year, or at the rate of approximately 12¼% per annum. In practice discounts for cash usually represent surprisingly high rates of interest. Except in the retail trade, or trade with ultimate consumers, the real price for cash is generally lower than the price quoted for payment on time, and there is thus present in the latter a definite charge for interest.

In foreign trade—especially in the export trade of the United States—the quotation of a price payable after a time coupled with an offer of a discount for cash is much less common than in internal trade. An interest charge

for delay in payment is not however forgotten. It is merely not so frequently registered in the precise form of a "discount for cash." The exporter will necessarily have his conditions regarding the time of payment, and a delay in payment by the importer will in one way or another be made to cost him interest.

In some cases the greater the delay the higher will be the price quoted for the goods. Thus in the export trade from the United States to England our merchants are often willing to quote prices in terms of sterling, the money of the importing country, and to draw a bill having a face value equal to the price. The longer the term of this bill the greater the delay in payment permitted to the importer. If the instrument is to be drawn at 90 days' sight the price will be higher than if it is to be drawn at 60 days' sight or at sight. A practically identical result is reached in the same trade if the price is quoted in dollars, the money of the exporter's country. Assuming as before that the exporter draws to obtain payment, he will draw a bill for a sufficient sum of sterling to sell for the required number of dollars. If the bill is at 90 days' sight he will have to draw for a larger sum of pounds than if it is at 60 days' sight or at sight, because the longer the term of the bill the lower the rate it will fetch in our exchange market, and the greater its face value will have to be. Thus the longer the importer postpones payment, the greater the amount of his home currency he will have to give up, and thus delay costs him virtual interest even if he does not pay straight loan or contract interest.

In some cases an express interest charge will be added to the price or "invoice cost" of the goods before the exporter's draft is drawn. This procedure is most suitable where the draft on the importer is drawn for some kind of money other than the money of the importing country, as in the instances of the drafts on Brazil and the Argentine, in dol-

lars and pounds respectively, reviewed in the two preceding sections.

We come now to a third plan of dealing with the interest charge. This is the method of introducing an interest clause into the bill on the importer. Substantially the same result is produced by this expedient as by adding interest to the invoice cost before making up the draft, but the two methods are distinct with respect to the externals or mere form. The reader will have observed that the drafts on Brazil and Argentina, considered heretofore, have no reference within themselves to interest. As a matter of custom, the interest clause is commonest in drafts upon India and the Far East. It appears sometimes, however, in bills on Australasia and Latin America.

The following is a specimen of a draft containing an interest clause, drawn in New York on India for pounds sterling.

£1,000. New York, July 1, 1913.

Sixty days after sight of this first of exchange (second unpaid) pay to the order of the Fiftieth National Bank the sum of One Thousand Pounds Sterling payable at the drawing rate of the Chartered Bank of India, Australia and China for demand drafts on London, with exchange and collection charges including interest at 6% per annum added thereto from date hereof to approximate due date of arrival of the remittance in London. Value received.

JAMES P. SMITH.

To John Doe,
Calcutta.

It will be observed this is a draft dischargeable by the purchase and remittance of another draft or "return draft" as we have called it. That is, it is a draft payable in exchange. This is the only form of draft which ever bears an interest clause. A simple bill of exchange, namely one drawn for a specified sum of the money local to the place

where the bill is payable (the ordinary form), is never drawn with an interest clause, at least where commercial custom is known. It might seem reasonable on occasion to draw such a bill, for instance in this form: 90 days after date pay to the order of A. B. One Thousand Dollars with interest at the rate of 6% per annum. This bill would, however, merely call for $1,015 at maturity, and according to standard practice it would be drawn simply for the latter sum without a mention of interest.

The specimen 60 days' draft on Calcutta for £1,000, given above, drawn in New York on July 1st, would be likely to yield returns in London about 110 days after this date. Assuming then that the parties in Calcutta fix upon the "approximate due date of arrival of the remittance in London" as November 10th, the drawee of the above draft would at its maturity have to provide a sight sterling bill not only for £1,000 but for this plus 110 days' interest at 6%, making a total of £1,018 1s. 8d. Also he will have to make this bill cover any and all bankers' commissions, figured in sterling.

If then a New York banker purchases the original draft from the exporter on the date on which it is drawn, he buys a claim to receive £1,000 in London 110 days later, with interest on this sum for 110 days at 6%, the whole being net or commission free. We may assume that the banker will ordinarily take the bill at the buying rate then ruling in New York for merchants' sight bills on London. He has to wait much longer for actual returns in London than when he buys a sight bill on that city, but he receives compensation for this at the relatively high rate of 6%.

If now the exporter can sell his draft at the prevailing rate for sight sterling, he draws for the number of pounds required at that rate to yield him his invoice, or the dollar value of the goods shipped. Thus if the rate is 4.84 (assuming normal rather than war-time conditions), and if the

invoice happens to be just $4,840, he draws for £1,000. He adds no interest to the invoice, before drawing, because the interest clause introduced into the draft itself makes it an interest-bearing instrument.

§ 73. **The "colonial clause."**—The colonial clause is a stipulation frequently appearing in bills on South Africa and Australasia. It reads, *payable with exchange (British and colonial stamps added) at the current rate in London for negotiating bills on the colonies.* It can properly be introduced only into bills (1) that are drawn upon British colonies and possessions in which the pound sterling circulates as a local money unit, and (2) that are drawn payable in these pounds of local currency. A bill drawn for pounds on Rio or Buenos Aires is payable, so far as pounds go, in pounds of London, that is, by a return draft on London. But a bill bearing the colonial clause, drawn let us say in New York upon Cape Town and for the sum of £100, is payable in the pounds sterling in circulation in the Union of South Africa (though, for reasons yet to appear, more than 100 such pounds would be required), and is not payable by pounds deliverable in London or by a return draft on London. A bill with the colonial clause is usually drawn upon a merchant and not upon a bank, though it can be drawn upon a bank for the account of a merchant when a special arrangement for this is made. South Africa and Australasia are the only large and important regions upon which bills with this clause are drawn.

The phraseology of the clause leaves its meaning far from obvious. The parenthetical expression, "British and colonial stamps added," is designed simply to shift to the drawee any stamp taxes that may be levied upon the bill by the British or colonial governments. These words omitted, the stipulation reads: "payable with exchange at the current rate in London for negotiating bills on the colonies." A number of explanations now become necessary. At the

outset, there is in fact no single rate in London "for negotiating bills on the colonies," but there are a number of rates differing according to the length of life of the bills and according to the colonies upon which they are drawn. When, however, the colonial clause is introduced into any given bill, the "current rate in London" means the particular one of these several rates that is quoted in London for bills of the same term and domicile as the given bill. To illustrate, if the latter (whether created in New York or elsewhere) is drawn at 60 days' sight on South Africa, it will be payable at its maturity with "exchange" at the rate then being charged in London upon bills at 60 days' sight on South Africa.

The buying rates in London for bills on the colonies are set by the conjoint action of the several great colonial banks that have branches in South Africa or Australasia and in London as well. In contrast with ordinary foreign exchange quotations, these rates do not fluctuate daily and hourly but may remain quite unchanged for very considerable periods, in this feature reminding one of the "posted rates" of New York. A rate between pounds sterling of England and pounds sterling of one of the colonies, bearing as it does a resemblance to a rate of domestic exchange, may readily be quoted (1) as a rate per cent. of discount or premium. But again it may appear (2) as a price in local English money of a pound or of 100 pounds of colonial money. In the London *Economist's* tables both forms appear, as witness the following examples, taken by preference from an issue of that journal appearing shortly before the beginning of the great war.

London on South Africa

	Buying Rates
Sight	7/16% discount.
30 days' sight	1 % discount.

	Buying Rates
60 days' sight	1⅝ % discount.
90 days' sight	2⅜ % discount.
120 days' sight	3¼ % discount.

London on Australia

Buying		Selling
	Cable	100¼
98¾	Demand	Par
98¼	30 days	
97¾	60 days	

(From the *Economist* for June 27, 1914, page 1575.)

There is no compelling reason why exchange on South Africa should be quoted one way and exchange on Australia the other. One must be content to say it is a matter of custom. The quotation of 60 days' sight bills on South Africa at 1⅝% discount means simply that the banks are paying for such bills £98⅜ per £100 of face value. The 60 days' buying rate on Australia means the banks are giving £97¾ for an ordinary 60 days' sight draft on Australia, it pays £97¾ cash down in London to receive £100 of Australian money 63 days (including three days of grace) after the arrival and acceptance of the bill in that commonwealth. In other words, pounds (1) deliverable in Australia and (2) deferred this far in the future are at a discount of 2¼% when bought and paid for with pounds (1) in London (2) payable cash down.

If we now suppose that the drawer in London of the 60 days' bill on Australia for £100, adds to it a clause which will require the drawee to pay not only the face value but the face value plus a premium of 2¼%, and to pay also all stamp taxes, we shall have a close approximation to the colonial clause though not the exact thing itself. We might imagine the drawer explaining to the drawee the meaning and effect of this (the supposititious) clause, in the follow-

ing words: "I am entitled to receive £100 in London to-day against goods just shipped you. Our understanding is that my bill on you is to be at 60 days' sight. If now I draw in the ordinary manner for £100, I will have to sell the bill at a discount of £2¼ and thus receive for it only £97¾, saying nothing of the stamp taxes. Therefore I am adding a clause to the bill requiring you to pay £2¼ extra, and the stamp taxes as well. I find that if I do this the banker in London will give me £100 for the bill. You pay enough extra to enable me to get £100 cash down and clear." If we throw this clause (still the supposititious one) into the phraseology most closely resembling that of the colonial clause itself, it would read: "payable with exchange (British and colonial stamps added) at the rate current on the date hereof [21] in London for negotiating bills on the colonies." This would mean payable with stamp taxes, and with "exchange" of £2¼, added to the face value. This is "exchange" at the rate current in London, namely, the rate of 2¼% discount.

This introduces us to a meaning of the word *exchange* not heretofore encountered. For the term, as just used, signifies the discount in the local money of some place upon a bill payable in the same kind of money at a distant place. If a person in San Francisco having a right to $1,000 in New York sells a sight draft on the latter city for this sum and is able to get only $999.75 for it, he may call the discount of 25¢ the "exchange" if he desires to, though the word will be used in a sense quite distinct from its other meanings. In a similar way the drawer in London of the 60 days' bill for £100 on Australia may speak of the discount upon it of £2¼ as exchange, and may communicate to the drawee the fact that he is to pay £2¼ extra by telling him that he is to pay the bill "with exchange" at the rate

[21] But the colonial clause means *payable at the rate of exchange current on the date of payment.* See text to follow.

current in London at the date of the bill for negotiating drafts on Australia.

Returning now to the bill originating in New York, drawn at 60 days' sight on Cape Town for £100, we are prepared to understand the significance of the colonial clause which will be added to it. There is one point, however, in which the colonial clause differs from the supposititious clause which we have been considering. When the colonial clause states that the bill is payable with exchange at the rate "current" in London, etc., it means at the rate current in London *on the date of payment* of the bill in South Africa and not on the date of the drawing of the bill in New York or any other date. So the drawee of this bill will when he comes to discharge it, pay the £100 face value, and then the "exchange" equal to the discount ruling at this time in London upon ordinary 60 days' bills for £100 on South Africa (this being in our illustration, £1 12s. 6d.), and finally the stamp taxes. The precise twist given to the word "current" in the colonial clause can only be explained by saying it is the custom.

Assuming that on the date when the bill now before us falls due the table of rates which we have already copied from the London *Economist* holds good, the total amount payable upon it will be computed as follows:

Amount drawn for, or "face value"	£100	
"Exchange at the rate current in London," etc., at 1⅝%		1 12s. 6d.
Stamp taxes		
Colonial 1s., English 6d.		1s. 6d.
		£101 14s.

The English stamp tax of 6d. is added on the supposition that the bill goes through London and is negotiated or sold there on its way to South Africa.

It remains now to make quite clear the reason for introducing the colonial clause into the bills which bear it. The advantage is that it has the effect of making a bill worth its face value in pounds in London if offered for sale in that city while on its way to the colonies. Thus the bill above considered, although payable 60 days after sight in South Africa, will sell for a full £100 in London on arrival. (This assumes, of course, that the instrument has a credit rating justifying its purchase.) A further effect is that the bill with the colonial clause sells in New York as if it were a sight draft on London. If it sells for its face value in London on arrival, it is obviously the equivalent of a sight draft of the same face value on that city, and will fetch the same rate in New York as this sight draft. The convenience of the colonial clause to the New York exporter thus becomes apparent. As the saying goes, he has but to convert his invoice into sterling at the rate in New York for sight bills on London and draw for the amount thus calculated, and this rule works no matter what the usance or length of term for which he is to draw (provided always he does not draw for a term beyond all customary limits and thus make the bill unsaleable).

To illustrate: A of New York makes a shipment to B of Cape Town with the understanding that he is to draw at 60 days' sight with the colonial clause added to the bill. There is due A on the day of shipment $12,000, the amount of his invoice. Sight sterling (*i.e.*, London sterling) is say at 4.85. A converts the $12,000 to sterling at this rate, thus:— 12,000 ÷ 4.85 = £2,474.23 or £2,474 4s. 7d. Drawing the bill with the colonial clause for the latter sum as its face value, he may sell it at $4.85 per pound and get $12,000.

Even if the bill, being bought perhaps by the New York agency of a British-Colonial bank, for reasons of convenience to this agency should not actually be sent through

London, it is still worth $4.85 per pound in New York. The question whether the bill is to go physically through London is a matter of indifference to the exporter.

From this point forward attention will be directed to certain more technical aspects of the colonial clause.

A bank in London will pay the full face value for a bill bearing this clause despite the fact that the instrument matures after a considerable period and is dischargeable in the pounds current in a distant land. The explanation is, as we have learned, that this clause compels the drawee to pay over and above the stated face value a certain premium, and as well the stamp taxes. This premium serves to counterbalance the discount that would be upon the bill in London if it bore no colonial clause. But the discerning reader has probably observed already that the premium is not the precise theoretical equivalent of the discount foregone by the banker. Thus, if an ordinary 60 days' sight bill on South Africa for £100 sells in London at a discount of £2, the addition of the colonial clause to it will require the drawee to pay a premium at maturity of £2,[22] and for this consideration the London banker pays the full £100 for the instrument. Therefore he states, as it were, that because he is willing to buy 100 deferred colonial pounds for £98 of London cash, he is also willing to buy 102 pounds of the same character for £100 of London cash. In the first case he pays 98% in London pounds for the colonial pounds, while in the second he pays 98.04%. This little matter is however ignored in practice.[23]

Referring to another curiosity of the colonial clause, the

[22] Assuming that the discount in London is still £2 at the time of the maturity of the bill in South Africa.

[23] Stated in ultimate terms, in the first case the banker purchases on the basis of a 2% *discount* rate, while in the second he purchases on the basis of a 2% *interest* rate which makes his gain slightly less. Compare § 14.

fact that the premium payable on the bill is determined by the rate of discount, on a similar instrument, *current in London at the date of maturity,* instead of the date of creation or first negotiation, means that at the time of purchase of the instrument the London or other British bank takes a speculation as to what the premium will be some two or three months later. But though this speculation undeniably exists in connection with any isolated or single bill, the speculation involved in the whole continuing business in these bills is practically ironed out or cancelled out, because while in some periods the premiums may turn out less than the discount foregone (these being periods of decrease in the rates of discount in London on colonial bills), in other periods (equally numerous in the long run so far as we know) the premiums will turn out greater.

Bills upon South Africa or Australasia originating in England do not customarily bear the colonial clause. But a substitution for the clause is in constant use by English drawers. Instead of enfacing the latter on their bills they simply add the "exchange" to their *invoices,* and reach the same result. Thus if £100 is due the English exporter, he adds the £2 for exchange to the invoice and (disregarding stamps) draws an ordinary bill for £102.

When reselling drafts originating in this country and bearing the colonial clause, American bankers are likely to deal with colonial banks which have New York offices as well as London branches or main offices. In practice they are therefore able to obtain for a draft either a credit in London (on the arrival of the instrument) for its face value in pounds, or the dollar value of the same in New York at the prevailing sight rate on London. They may take whichever suits their convenience. Sometimes the colonial banks offer our bankers a slight premium for drafts bearing the colonial clause.

The American bank indorses the bill to the colonial bank

without introducing the latter's place of business into the indorsement, to the end that the instrument may become transferable to and be negotiated by any one of its branches. If the bill can be got to the drawee more quickly by mailing it direct rather than through London, the first of exchange will be forwarded directly to the branch of the colonial bank nearest the drawee, for the earliest possible presentment for acceptance, and the second of exchange will be mailed to the London or New York office of the colonial bank, according to convenience, with advice as to what has been done with the first of exchange. It will in this case be the second of exchange which is physically sold to the colonial bank.[24]

§ 74. Settlement without draft by exporter. Delegations. —Despite the extreme importance of the exporter's draft as an instrument of commerce, settlement may be managed without it, and we shall at this point consider a few instances of its omission.

Suppose first a case where the exporter demands "cash against documents" in his city, meaning that he must receive full payment in local cash at the time of making the shipment. He may be a manufacturer or dealer who has no desire to develop a foreign business, or who does not care to enter into operations in exchange, or perhaps he is merely unwilling to place any degree of confidence in the particular foreign buyer in the case. He ought to be satisfied with a confirmed bank-credit, if that were offered

[24] The Colonial clause, considered apart from its minor provision regarding the payment of stamp taxes by the drawee, is in reality a somewhat disguised variant of an interest clause. For, so long as England and the colonies are both on the gold standard and there is freedom of traffic between them, the discount in London on a bill upon the colony will consist primarily (though not by necessity wholly) of interest. In making the drawee pay a premium equal to this discount, we are making him pay what is substantially interest until arrival of funds in London. Space is lacking for an extended discussion of this point.

(under which normally he would draw a draft), but suppose he insists on the delivery of actual cash and the importer assents. The latter conceivably might buy the necessary amount of exchange on the exporter's country and send it to him, saying "now then please ship the goods and forward me the bill of lading and other papers." But this simple scheme would in general be open to the objection that it requires the importer to place too much reliance in the good faith or solvency of the exporter. By modifying the plan and enlisting the services of the banker, the importer may gain a greater protection for himself and still meet the demands of the exporter. He induces a banker of his own city to establish a cash fund or cash credit in a bank in the exporter's city under instructions that the same is to be paid over to the exporter upon his delivering up the documents covering the goods to be shipped. This meets the exporter's terms of "cash against documents" but avoids the risks of an unqualified prepayment without security. To increase his protection the foreign merchant may cause to be appointed a person to inspect the goods at the place of origin or export, and have the bank directed not to exchange the cash for the documents without a satisfactory report from this inspector with regard to quantity, quality, and packing.

It is apparent this case is one in which it is possible for settlement to be completed without the exporter's drawing a draft. It is true there is a sort of bank credit established in his favor under which he might draw a documentary sight draft, but when the bank in question is located in his own city he is likely to exchange the documents directly over the counter for cash or a check, a draft by himself thus being eliminated.

In a second case remittance by the importer may displace a draft by the exporter, not because the latter's terms are onerous but rather because they are liberal. Thus sales to

a regular and highly trusted foreign customer may be made "on open account." Transactions are on open account when the seller simply charges the buyer's account with the amount due for each shipment and awaits periodical remittances from the buyer. The business of the grocer with his ordinary customers who settle monthly, is a very homely but accurate illustration, though no doubt we can hardly speak of the grocer's deliveries as shipments. Sales on open account are much commoner in domestic trade, but they are known to foreign trade.

Since prior to quite recent times drafts by shippers have been comparatively very rare in the internal trade of the United States and remittances of bank drafts or their personal checks by buyers have been the rule, the question suggests itself, why does not the remittance system of settlement have a greater vogue in international commerce. The reason is simply that exporters and importers located in different countries characteristically take less chance on the good faith or solvency of one another. So the documentary draft is the fashion in foreign trade. Of course the risks are differently distributed according to the character of the draft, according for instance to whether it is drawn on a bank under a credit or is drawn on the importer, and according in the latter case to whether the documents are for acceptance or for payment only.

There remains a third case where a draft, in the strict sense of a bill of exchange, is not drawn by the exporter. The exporter, having made the shipment, takes the documents to his local bank and requests it to forward them to a correspondent or branch in the importer's city with instructions that they be surrendered in return for such and such a sum of foreign money, or for such and such an amount of exchange. If the exporter drew a documentary sight draft on the importer and had it forwarded through these same banks, practically the same result would be

reached, but this draft is at times omitted to avoid a stamp tax that would be levied upon it. Some sort of written instrument ought, however, to accompany the documents to make definitive what payment is expected in return for them and to witness the authority of the banker to collect this. This instrument is known as a *letter of delegation,* since it delegates to the banker the right to collect. It is not taxable as a bill of exchange. It is not negotiable in the legal sense and puts the parties in a somewhat different legal position from the one they would occupy if a bill were used, but in many cases this makes no great difference.

§ **75. Advances and local bank acceptances arranged by exporter.**—The right of the exporter to draw a long bill on a bank, as it has been known to us heretofore, has been one arranged for by the importer. But where the importer does not agree to provide such a right, the exporter may take steps of his own, at his own bank or a bank in his vicinity, to secure a similar privilege. When the importer arranges the bank credit, the exporter draws a bill on a bank *instead of* a bill on the importer, but in the case now to be taken up, he draws both a bill on a bank and a bill on the importer. The case is really one of the four principal arrangements under which a bank may take over an exporter's draft on the importer, and is best explained by showing its position in this group. The four arrangements are:

1. Outright purchase of the draft
2. Receipt of the same for collection only
3. Receipt for collection coupled with a loan or advance against the draft and documents as collateral
4. Receipt for collection coupled with a grant of the right to draw a long bill against the expected collections as cover

(1) An outright purchase is an exchange by the bank of a sum of present cash in full consideration for the right to collect for itself all money forthcoming from the draft. (It

is not necessary that the bank surrender its right of recourse upon the drawer to constitute the transaction a purchase.)

(2) A bank taking a draft for collection becomes the agent of the holder or depositor of the instrument, acquires authority to receive the sum due upon it, and becomes charged with the duty to account to the depositor for this sum, or the proceeds of it after appropriate operations in exchange. Here the exporter receives nothing until the proceeds of the collection are returned, and the bank has no power to seize and sell the merchandise collateral in its own behalf and has no right of recourse upon the exporter as drawer.

(3) Against the receipt of a draft (or a letter of delegation) for collection, the bank may make the exporter a loan of a certain proportion of the expected returns, charging interest according to the amount and period of this advance, and holding the claim against the importer, and also the merchandise, as collateral security. The plan of collection with a partial advance of cash is very common indeed.

(4) Finally against the receipt of a draft (or letter of delegation) for collection, the bank may grant the exporter the right to draw a long bill upon itself for its acceptance. The idea is that the exporter may enter the open market to sell the accepted bill thus created, and so procure the present cash for which he nearly always hungers.[25] The operation will be best understood by conceiving it as a sort of substitute for a partial loan or advance of cash by the bank.

The term of the new bill—the one which the bank ac-

[25] For this proceeding the name of "refinancing" has recently been suggested. If the accepting bank purchases its own acceptance the operation becomes virtually identical with the old-fashioned advance against the exporter's draft, except that the purchased acceptance now exists as a bill capable of rediscount.

cepts—should be long enough to make certain that under ordinary conditions the returns from the draft on the importer will arrive in time to provide for its discharge at maturity. These returns are, in other words, counted upon to serve as cover for the acceptance. This is the "acceptance arranged for by the exporter himself" referred to at the beginning of the present section.

For an illustration suppose an exporter brings to his bank his draft on a certain foreign merchant, a draft which is expected through collection to yield a return of about $10,000 in home money after about 80 days. Instead of making a partial advance of cash against this instrument as collateral, the bank proposes that it accept a 90 days' sight bill to be drawn on it by the exporter, for the sum let us say of $7,500. Since this bill becomes the unconditional obligation of a bank, it will sell in the market on favorable terms, and assuming it is discounted at a rate of 4% it will fetch $7,425. Suppose the collections of $10,000 from the importer arrive just in time to provide for the payment of the acceptance at maturity by the bank. They will be applicable first to this very purpose, under the prior claim created in favor of the bank at the time it grants its acceptance. This will take $7,500. They will be applicable second to the payment of the bank's commission, say $37.50 or ½%. The remainder, or $2,462.50, will go to the exporter.

To review these proceedings from the standpoint of the exporter, we see that this person gave up the chance to receive $10,000 ninety days deferred, and received instead $7,425 of present cash and $2,462.50 of money deferred ninety days. Thus he obtained a partial advance, not it is true directly from the bank, but through its aid. This advance was procured at a cost of 4% per annum (discount rate) plus a commission of ½% per quarter, or a commission figuring at 2% per annum. The interest cost was thus evi-

dently about 6% per annum, but if we desire to compute the exact rate we must proceed as follows:

(In this computation we take 90 days as ¼ of a year.)

Exporter's repayment to bank, or sum taken from collections by bank		
Amount to discharge bank's acceptance..	$7,500.00	
Bank's commission	37.50	
	$7,537.50	$7,537.50
Present cash received by the exporter from sale of the acceptance		7,425.00
Difference		112.50
This difference is the interest cost for an advance of $7,425 for a period of ¼ year.		
Per cent. of interest for ¼ year.....		1.515%
(That is, 112.50 is 1.515% of 7,425)		
Rate of interest per annum (4×1.515).....		6.06 %

In this operation the bank does not make interest. It makes no advance of actual money or money funds. The cash for the exporter comes from the "market," or more specifically, from the one with whom he discounted the acceptance. The only takings of the bank are its commission of $37.50. This is a compensation for the risk it has assumed in becoming unconditionally bound upon the bill it accepted. If the returns from the importer were to fail entirely, if the merchandise were lost, and if the exporter became worthless in a business sense, the bank would have to pay the $7,500 due on its acceptance just the same. The fact that the rate of commission tends to be higher the longer the period during which the bank carries this risk, makes it look somewhat like a rate of interest, but it is emphatically not this.[26] The bank should, of course, exercise the same care in granting an acceptance against an exporter's

[26] Compare § 50.

claim on an importer as it would in making a partial advance of cash against the same security.

For a bank by this means to aid an exporter to procure cash in the open money market is not to be regarded as discreditable but rather as a legitimate and useful business. The type of acceptance before us at the present moment, like any other, should be granted only with a due regard for the limits set by law or propriety upon the total of acceptances which a bank ought to have outstanding at any one time or ought to have outstanding in behalf of any one business house. Under present Federal statutes the granting of acceptances against deposited exporter's drafts is strictly lawful, and there is nothing in the origin of such acceptances making them ineligible for rediscount with a Federal Reserve bank.

The fact that in any given instance an American exporter draws on a home bank does not in itself show whether he or the importer has arranged for the right to draw. For the importer, although acting practically always through a bank in his own country, might have provided a commercial credit with one of our banks, that is, a so-called "dollar credit." This case would be but a variant form of the one already discussed in the chapter on the commercial credit. It is safe to say that until quite recently the drawing by American exporters of long bills on American banks was virtually unknown. But to-day our exports are to an extent being financed in this manner, and some of the instances are ones where the exporter himself arranges for the draft on the bank. London bankers have before this been granting English exporters acceptances against their drafts on importers in outlying countries.[27]

§ **76. Terms and methods of settlement summarized.**—In connection with the export of goods there arise many tech-

[27] *See* W. F. Spaulding's "Foreign Exchange and Foreign Bills," pp. 164–5, especially at bottom of p. 165.

nical problems, such as packing, routing, insuring, transshipping, the preparation of consular invoices and certificates of origin, and the clearing of the goods through the custom-houses at the ports both of export and of import, to say nothing of the problems of the financing of shipments or arranging methods of settlement. In the handling of foreign commerce many specialized functionaries, quite distinct from the ordinary rail and water transportation companies, manage to find employment. Such are resident sales agents, manufacturers' export agents, export commission houses, foreign freight forwarders, and custom-house brokers. With the exception of problems of settling for and financing shipments, the special commercial art of export lies beyond the purview of the present book, but we should realize that methods of settlement are likely to be much influenced by the intervention of sales or export agents or export commission houses, especially the latter. For instance the merchant in a foreign land who wishes to buy an article manufactured, let us say, in Detroit, may be able to arrange more satisfactory terms by dealing with or through a New York export commission house than by dealing directly with the manufacturer.

The principal subjects of a contract of sale are:

(1) the quantity and quality of the article to be sold (in brief, the goods), and (2) the amount and kind of money to be paid for these articles (in brief, the price). But there are a number of secondary or collateral matters which the contract must determine, whether expressly or impliedly, such as:

1. The time when the buyer must make payment,
2. The manner or mode in which he shall pay (whether by remittance or by submission to draft),
3. The allocation of the incidental costs such as cartage, freight, insurance, customs duties, and the like, and

4. The allocation of the interest charge for the period of the transit of the goods.

By the allocation of these costs or charges we mean their distribution between seller and buyer. Charges resting upon the seller may be spoken of as "included in the price." The elements of the agreement which we here distinguish as secondary, are in common speech known as the "terms" of the sale. When the seller makes known his demands with respect to these matters, he, as we say, states his terms.

In the list to follow, we give the chief terms pertaining to time of payment, that are familiar to foreign commerce. In this list the order is from the strictest to the most liberal of conditions.

TERMS	*Appropriate Method of Settlement*
I. CASH WITH ORDER.....	Remittance by importer to exporter, in regular practice of a sight draft on a bank in the exporter's country.
II. CASH AGAINST DOCUMENTS AT PLACE AND TIME OF SHIPMENT....	1 Remittance as above, but remitted draft held by agent of the importer until exporter exchanges shipping documents for draft, importer gaining control of documents when making payment.
	2 Payment for documents through a bank (*see* text).
	3 Payment for documents by a commission house which advances for the importer

	the amount thus paid, usually against the documents and goods as collateral.
	4 Provision by the importer of a good commercial credit with a bank (ought to be satisfactory under terms "cash against documents").
III. PAYMENT FOR DOCUMENTS AT POINT OF DESTINATION	
(A) On Arrival of Documents	Sight draft or letter of delegation of exporter on importer, with documents attached.
(B) On Arrival of Goods (to allow opportunity to inspect goods).....	Same as above, except that draft accompanied by instructions that presentment for payment be deferred until arrival of goods.
(C) Within a Designated Period After Arrival of Documents	Long draft by exporter upon importer, documents attached and documents for payment, the privilege of prepaying being understood.
(D) Within a Designated Period After Arrival of Goods	Same as above, except instructions given to withhold presentment for acceptance until arrival of goods.

IV. ACCEPTANCE[28] IN RETURN FOR DOCUMENTS DELIVERED AT POINT OF DESTINATION	
(A) ON ARRIVAL OF DOCUMENTS	Long draft by exporter upon importer, documents attached, documents for acceptance.
(B) ON ARRIVAL OF GOODS...	Same as above, except instructions given to withhold presentment for acceptance until arrival of goods.
V. SALE ON ACCOUNT CURRENT, "OPEN ACCOUNT" OR "OPEN CREDIT"	Periodical remittance by importer to exporter, usually of a sight draft on a bank in the exporter's country.

"Cash with order," the least liberal of terms recognized in ordinary commercial practice, signifies that the buyer must make payment when placing the order with the seller. Practically, these terms come to this, the buyer must make payment before the seller will act upon or incur any expenses in connection with the order. If an exporter who quotes these terms has the goods in stock he declares in effect he will not do so much as to pack and deliver them to the transportation company without receiving cash in advance. If he does not have the goods in stock he will not purchase or assemble them without prepayment, or if a manufacturer, he will not start them in process or assume any costs of production without prepayment. The terms

[28] Acceptance having the effect of binding the drawee unconditionally to any holder in due course, which a buyer of the instrument will usually be.

"cash with order" are very burdensome to the foreign buyer, first because they require him to find cash or lock up funds a considerable time before he can realize upon the goods (whereas what he likes best is to pay for the goods out of the amount he realizes from their sale), and second because they require him to repose a maximum of unrequited confidence in the exporter, for he must trust to the latter to pack properly and ship within a reasonable time the right kind and quantity of article.[29] Considering that, except in cases where he has a long-standing acquaintanceship with the exporter, an importer usually has a strong desire to inspect the goods at destination before even committing himself to the extent of an acceptance,[30] one might wonder if he would ever submit to the terms "cash with order." Nevertheless some foreign buying in a small way takes place under these terms.

The phrase "cash against documents" signifies that the importer, whether acting for himself or through an agent, will be required to make payment before the shipping documents, and thus the control of the goods is surrendered to him.[31] But the practical force of the phrase remains uncertain unless it is supplemented with an understanding as to the place where the importer is to make this payment and take up the documents. This might be the point of origin, the port of export, the port of import, or the place of destination when this is distinct from the port of import, but in the great majority of cases where terms are quoted in the exact phraseology "cash against documents" the

[29] Failure of the exporter to live up to the agreement of sale would of course create in the importer a right of action at law, but it is so difficult and so expensive to enforce a right or to get damages in the courts of a distant country that the aggrieved party in international commerce regards resort to the law with little enthusiasm.

[30] That is, to the extent of accepting a bill upon himself.

[31] On his agent or banker.

place of taking up the documents will be within the exporter's country. Thus, speaking of a quotation from the United States, we might have "cash against documents in New York" or "cash against documents in Detroit," or some other interior point of origin. If the intention were to have the importer exchange money for the documents at the place of destination, as say Rio, the words "cash against documents at Rio" might be employed, but the intention would be better expressed and more usually expressed in the phrase "sight draft with documents." A sight draft, with the documents attached and deliverable against payment of the draft, would of course be the most appropriate means of putting this intention into effect, unless perchance the exporter should have an agent at Rio who could personally deliver the documents for local cash or for sight exchange on New York or London.

Under the terms "cash against documents," the exporter buys or manufactures the goods, packs them and makes delivery to the transportation company, before receiving payment. Thus, except in cases of fraud or mistake, the importer makes no disbursement until the wares are in existence and under way to him and the shipping documents are under his control. The exporter makes all his expenditures connected with the transaction, before he receives payment, but he does not give up the shipping documents or documents of title before payment. While the terms "cash against documents" are by no means so strict as "cash with order," they are regarded by the ordinary importer as very illiberal.

The more appropriate methods of settlement to be followed under the terms, "cash against documents" at the place of shipment, have been indicated in the conspectus already given. The importer may remit a draft payable in the exporter's country for the requisite sum of the money of that country, to an agent who will thus be put in funds

to take up the documents for him. Any method whereby this agent may be placed in funds will of course serve. The importer may induce his home bank to make arrangements with some bank in the neighborhood of the exporter to take up the documents. The institution thus paying for the documents will reimburse itself in some appropriate and convenient manner at the expense of the importer's bank, and the latter will sooner or later collect payment from the importer himself. The bankers will, of course, charge commissions. The importer may induce a commission house located near the exporter to take up the documents for him, there being several possible arrangements between himself and the commission house. To give one illustration, this house may draw on the importer a bill, perhaps a long one, with documents attached. In this case some might be inclined to regard the commission house as the true exporter, but this will depend upon how we define the term "exporter," a question which we shall avoid opening here. If the importer provides a commercial credit with a good bank, especially if it is a confirmed credit, this ought to satisfy a reasonable exporter who has stated his terms as "cash against documents." For, as we already know, under ordinary conditions this will enable him to obtain cash in full at the time of surrendering the documents at the point of shipment. One may object however that this is not quite equivalent to the receipt of an outright and final payment of cash, for the reason that the exporter incurs drawer's liabiliy on the draft which he creates under the credit. The objection is genuine but not very substantial because recourse upon the drawer could come in this case only in the event of the failure of the drawee-bank to honor an authorized draft upon itself, a danger in general to be regarded as negligible. In this case the exporter has no stake in the solvency or reliability of the importer (compare § 49).

On the other hand, draft by the exporter upon the importer in person would not meet the terms, "cash against documents" at the point of shipment even if this draft should be readily salable for cash. For here recourse upon the exporter would be brought about if for any reason the importer failed to honor the bill, and thus the exporter cannot regard the cash received from the sale of this instrument as his own then and there as a matter of practical finality.

The agreement of sale may prescribe payment for the documents at the point of destination, or if yet more liberal may require merely an acceptance in return for the documents at this point. The several methods of settlement suitable to these conditions are set forth in the table already presented, and should be in the main self-explanatory. However, an additional word seems advisable with regard to postponement of presentment until the importer has opportunity to inspect the goods. It is very common of course for a draft and attached documents to reach destination prior to the arrival of the merchandise to which they appertain. If the draft is owned by the bank at the place of destination, or by some other bank for which it acts as agent —if in other words the draft has been bought from the exporter instead of having been taken merely for collection— it must be presented to the drawee, whether for payment or for acceptance (where presentment for acceptance is necessary), within a *reasonable* time if the right of recourse upon the exporter as drawer is to be preserved. But importers are in many cases extremely averse to paying or accepting a draft before the goods arrive and become open for inspection. Especially is this true of importers resident in South America. In determining whether presentment has taken place within a reasonable time, regard must be had (according to both English and American law) to the nature of the instrument, the usage of trade or business (if any) with

respect to such instruments, and the facts of the particular case. How far a bank might go in postponing presentment with a view to permit the arrival of the goods and inspection, without destroying the right of recourse, is a question which so far as the present writer can learn has not been adjudicated in America or England. But it is clear that the drawer's express consent to such a postponement ought to be a matter of record if the postponement is to be made, and some bankers at least, dealing in bills on South America, make a practice of requiring the drawer to give instruction on the matter.[32] A postponement on the drawer's order or with his consent will not terminate the right of recourse on him. (The foregoing gives such explanations as seem necessary in connection with cases III B, III D, and IV B as set forth in the table.)

It has been stated that among the collateral matters to be determined by the agreement of sale is the question of the allocation of the incidental costs of cartage, freight, insurance, customs dues and brokerage, and similar charges. When an exporter quotes a price to a prospective buyer it is important there should be a definite understanding as to just how many of these incidentals are payable by the exporter under this quotation. If the agreement of sale is silent on this subject, the buyer is supposed to receive the goods at the place where they are when the bargain is struck, and to carry all expenses and risks from this point forward. The terms respecting incidental charges most common in practice are the ones represented by the abbre-

[32] Cf. p. 305. The following is quoted from a pamphlet upon "Export Trade to Central and South America" issued in 1917 by the Mechanics and Metals National Bank of New York, p. 16. "Remember that practically all over South and Central America merchants have the right to await the arrival of the merchandise before accepting a time draft or paying a sight draft. Bear in mind that in those countries the documents attached to a time draft must always be delivered to the drawee against his acceptance."

viations F. O. B. and C. I. F. The meaning of these and certain other related symbols are given beneath.

F. O. B. or "Free On Board."
F. A. S. or "Free Along Side"
C. I. F. or "Cost, Insurance, and Freight" included.
C. F. or C. A. F. or "Cost And Freight" included.
Franco Domicile. (A European expression. *See* text.)

If a quotation is F. O. B., the seller undertakes for the price named to deliver the goods on board car or ship at a designated place, free of charges to the buyer. The terms become definitive only when this place is stated or understood. Goods may be sold F. O. B. at the point of origin (as say Detroit), or at the port of export by sea (as New York), or again at some point further on, as the port at the end of the sea passage (as say Genoa). In the absence of specification of the place where the goods are to be F. O. B., the point of origin would be implied, unless an established usage of the trade gives rise to another implication. Under these terms the seller agrees to take all risks as well as pay all costs until the goods are on the vehicle of transportation at the indicated place, and the buyer agrees to take all subsequent expenses and risks.

F. A. S. or "free along side" the steamer at some point of shipment or transshipment, signifies that the seller is to deliver the wares on the suitable lighter or pier along side the ship, taking expenses and risks to this point, the buyer carrying them thence forward.

C. I. F. signifies that insurance and freight are payable by the seller to some stipulated point, whether an intermediate place or the place of ultimate destination. Under these terms delivery from seller to buyer is made at the initial shipping point, and the carrier becomes the agent of the buyer and not of the seller, so that the risks while the

goods are in transit are assumed by the buyer. In the formula C. I. F., C. means not incidental costs but means the cost of the goods themselves or the bare price. The price quoted includes this and also the insurance and the freight charge. "The amount of money named in the contract [of sale] is all that the buyer is to be required to pay for the goods themselves, for insuring them during transportation, and for the carrier's freight charges. These expenses fall upon the seller, all others on the buyer. Delivery is not made on board, but at the warehouse or wherever the goods may be when sold. The buyer pays for taking them to the cars or vessel. He pays every expense not included in the cost of the goods themselves, or in their insurance and actual cost of carriage. Established usage in certain lines has decreed that the seller shall bear some minor expenses not falling strictly under any one of these three heads, but that is altogether exceptional." [33] C. F. or C. A. F. have the same force as C. I. F. except that they place the cost of insurance during transit upon the buyer instead of the seller

The purport of the expression "franco domicile" is that the wares are to be delivered by the seller, for the price named, at the very place of business of the buyer in the city of destination. No terms respecting incidental costs could be more liberal to the buyer.[34]

[33] Quoted from the "Exporter's Encyclopedia" already cited, p. 117, edition of 1914, or p. 221, edition of 1918–19. For the fullest discussion of what we may call "commercial terms" the reader would best consult a legal treatise on "Sales."

[34] According to W. A. Graham Clark, European export houses that were before the war desirous of getting a foothold in the cotton business in Turkey would sometimes grant the terms "franco domicile." *See* Special Agents Series (Department of Commerce and Labor), No. 18, "Cotton Textile Trade in the Turkish Empire," etc., Washington, 1908, p. 17. The following is quoted from another number of the same series: "Far more satisfactory results [in developing

§ 77. Dealing in exchange on places where no balance is kept.—Heretofore, when we have supposed a bank to buy or sell bills and cables, we have assumed bills and cables payable in a place, or at least in a country, where the bank has a balance or what is more familiarly known as a deposit. Now while a bank would find it a great convenience to keep such an account in any city in bills upon which it conducts a large and active business,[35] it can nevertheless both buy and sell exchange on a place or country where it does not maintain a deposit.

We can distinguish three classes of such transactions.

I. The first is the purchase or sale of exchange by a centrally located bank upon a place where it has a depositing correspondent. By the latter we mean a bank which keeps a deposit with the centrally located institution but does not hold a deposit from it. New York banks have deposits from innumerable lesser interior banks without carrying deposits with them. The same statement will hold generally of the relations of the greater London banks to foreign establishments scattered over the world. If a man in London, who wished to make payment to one in New York, approached his bank for a draft on the latter city, the bank might be unable to draw for him a check against a balance. It might advise its customer to buy and send a sterling draft to his American creditor or friend, nevertheless it can, if it

American cotton trade] would be obtained if prices were quoted c.i.f. a Turkish port, as is the rule with the European manufacturers. It is even possible to quote franco domicile, as the Italians sometimes do, because the Turkish tariff on all imports is uniformly 11% of the invoice value. It is far more satisfactory to the dealer here to know just what the goods will cost him landed at his door." Special Agents Series, No. 54, "Cotton Goods in Turkey," by Ralph M. Odell, Part I, 1912, p. 21.

35 If the business is very large indeed it may make advisable the establishment of a branch or agency.

chooses, sell a demand draft on New York. It can draw on some bank in that city from which it holds a deposit, or which is, in other words, one of its depositing correspondents. It will send advice to this correspondent requesting that it pay the draft when presented, and will suggest means whereby the correspondent may reimburse itself, unless these means are already understood. There is more than one method possible for accomplishing the object. Not to go too far into detail, one plan would be for the bank at New York to draw a draft on the London bank in a sufficient sum to sell (at the local rate for this class of exchange) for the dollars it has paid out on the London bank's draft plus its charges, if any, for its service. This second draft, or reimbursement draft, the London banker would pay without deduction from the New York bank's deposit, and so reimbursement would be effected. Again the New York bank might omit to sell the reimbursement draft and instead merely send advice by mail to the London bank to credit its (the New York bank's) balance with the same amount of sterling for which this draft would have been drawn, the credit to be entered on the arrival of the advice. This change would be from the standpoint of the London bank a matter of indifference,[36] but would give the New York bank its reimbursement in the shape of London funds instead of New York funds. These London funds simply become merged in the general credit against which the New York bank can sell sight sterling at any time. Under either variation of the plan of reimbursement here outlined, the centrally located establishment (the London bank in this case) gains the use of the sum for which it sold its original draft, for a period at least double the mail time between itself and the city on which it drew.

[36] Under either variation it pays the same amount of sterling on the same day, namely the day of the arrival of return mail from New York.

Speaking of the general case, namely draft by a bank upon its depositing correspondent in a foreign country, the method of reimbursement to be arranged between the two institutions is a problem of two principal elements, (1) the time of the act of reimbursement, and (2) the rate of exchange at which it takes place. To give merely one further example to bring out the meaning of these elements, it would be a conceivable method for the London bank to reimburse the New York correspondent by crediting its balance (1) on the day when the London bank sold the draft on New York and (2) at the rate of exchange between dollars and pounds then current either (a) in the London market or (b) in the New York market. The reader will perceive that the timing of the act of reimbursement determines which of the banks enjoys the temporary use of funds, or a hidden interest gain, on account of the whole operation, and for what period.

If the London bank were called upon to collect a draft drawn on some one in or near New York (whether or not it had bought the instrument), it could again make use of the facilities of its depositing correspondent. It could ask the latter to obtain payment and return the proceeds by remitting a draft on London, taking out the charges in dollars and cents before buying this sterling return draft with the dollars collected. If the New York bank itself draws the return draft on the London bank itself and payable to the London bank itself, the whole matter is settled. In the end the London bank reimburses itself by making a deduction from the sterling balance it owes the New York bank, and the latter has collected and kept the dollars paid by the drawee of the original draft on New York.

II. The second case of the sale of exchange on a place where the drawer has no balance is one where a depositing

correspondent of some centrally located institution draws upon a fellow depositing correspondent of the same institution, but a fellow in a foreign land. Suppose bank A in Africa or Asia or South America and bank B in the United States both carry balances with Lloyds' Bank of London. Either one can draw on the other and request payment and provide a fairly convenient plan of reimbursement, and either one can ask the other to make a collection for it. For one example, suppose that bank A in Bombay was pressed to sell a draft (a sight draft of course) on New York where bank B is located. It could draw on B, advise it of the act, request honor of the instrument, and propose reimbursement by B's drawing enough sight sterling on Lloyds' Bank to sell for the dollars it has paid out plus its charges. This sight sterling would of course be payable at Lloyds' Bank not from the balance of bank B but from that of bank A of Bombay, and bank A would so advise Lloyds'. Thus the bank in Bombay sells a dollar draft for rupees, and makes a payment against this operation by submitting to a transfer of some of its sterling credit in London to the American bank on which it has drawn. It can if it desires turn the rupees upon their receipt into sight sterling drafts bought in Bombay to forward to London. It takes one risk of exchange, the risk as to the position of the sight rate in New York on London on the day when the New York bank draws the reimbursement sterling draft. In this kind of business, which naturally has a sporadic character, B, the seller of the unusual class of exchange, should make the rate quoted cover the contingencies of the case. The bank in New York pays out dollars to honor the draft drawn on it, and gets the dollars back immediately by a sale of a sight sterling.[37]

[37] If it preferred such bank could of course deposit this sterling to its own credit in London instead of selling it for dollars in New York.

III. The third case of the sale of exchange on a place where the drawer has no balance is exemplified by the offering of sterling and other foreign bills by many of the lesser interior banks in the United States. Suppose that A who resides in some smaller city or town has need of a sterling bill for £50, perhaps to pay for an order of books. It is entirely possible his local bank will be in a position to supply him even though it has no deposit in London, or elsewhere abroad. It sells him, we may suppose, a draft of its own drawing on the London County Westminster and Parr's Bank, and charges a rate something above open market rates in the great cities. It has an arrangement with some greater American bank (or with some exchange house) one in New York perhaps, which makes this feasible. This New York bank is one which has a deposit with the London County and Westminster. Without much of the detail, the plan is this: The local bank draws the draft. This instrument will look almost like a normal draft on a European bank but will in fact be on a peculiar form, which serves to identify it immediately at the drawee bank for what it is. The drawing bank quickly starts an advice on its way to the New York bank asking it to advise the London County Westminster and Parr's to honor the draft and reimburse itself from its (the New York bank's) balance. The New York bank probably carries a deposit from our local bank, and will be authorized to collect from this the number of dollars due for the sterling which it has virtually sold the lesser bank and for its commission or charges. Or the local bank may remit it this number of dollars in New York exchange along with the advice. The banks act quickly to insure the arrival of advices in London as early as the sterling draft. It all comes to this: Mr. A pays his local bank dollars, it pays a New York bank dollars, the latter pays the London bank pounds (out of its balance with this bank), and the London bank pays

the pounds due on the draft to the holder thereof. Banks and dealers that provide interior banks with the facilities just described, are sometimes called "exchange jobbers," and this particular branch of business is called "exchange jobbing."

CHAPTER XI

INVESTMENT IN EXCHANGE

§ 78. Exchange investment, borrowing, and speculation.— At this point we begin the discussion of a group of operations which do not arise out of the export and import of goods or securities but which are engaged in by bankers and exchange dealers without any object of effecting commercial settlements. Of these operations there are four principal kinds, (1) investments in exchange, (2) borrowing by means of exchange, (3) speculation in exchange, and (4) arbitrage in exchange. A chapter will be given to each.

Regular long-term international borrowing and lending, accomplished chiefly by the international sale of bonds and stocks, give rise of course to vast numbers of transactions in exchange. Settlement must be made by importers with the exporters of such securities, for their original sale prices, and periodically the payment of interest charges and dividends from the one country to the other will force resort to the exchanges. But when we come now to speak of *investment in exchange* and *borrowing by means of exchange,* we do not have reference to international investments or loans of capital effected by the transfer of long-term securities, even though these have their exchange relations. We have in mind certain entirely distinct and technical operations in bills of exchange themselves, such on the one hand as the purchase of a long foreign bill to be held till maturity instead of being discounted in the foreign money market, and such on the other hand as the

drawing and sale of a banker's long bill on a foreign banker as a means of gaining the benefit of a virtual loan of funds for the term of the draft.

Speculation in foreign exchange is a technical possibility and is much practiced by certain types of dealers. It bears some fundamental resemblances to speculation in stocks or commodities, but is a subject requiring a special explanation which it shall be our endeavor to give in Chapter XIII of this book. Foreign exchange investment, borrowing, and speculation are intimately related themes. The first two always involve a speculation on the future course of the sight rate of exchange. The one taking such a speculation may cancel it or neutralize it by a proceeding which is commonly known as "hedging"; this does not mean that the speculation is not involved, but rather that, being involved, it can by a special device be neutralized. (Compare the explanation of hedging in § 91 to follow.) Investment and borrowing are related to each other in that both are due to or are occasioned by a difference between discount rates at home and abroad. But the two are opposite in this respect, that investment in exchange tends to be produced by *lower* money rates at home, while borrowing, or the drawing of finance bills, tends to be produced by *higher* money rates at home. The two are opposite also in respect to the immediate or contemporary effect they tend to work upon the sight rate. Exchange investment on our part tends at the time when the investments are taking place to raise our sight rate of exchange on the foreign country, and so far as it goes, tends thus to bring about gold exports, whereas exchange borrowing on our part tends towards the reverse effects, a lowering of the sight rate and a production of gold imports.

§ 79. **The method of investment.**—Investment in foreign exchange, or the holding for a period of time of a long foreign bill that has been bought and paid for, is the op-

posite of the earliest possible discount of the instrument in the money market abroad where it is payable. The act is regarded as one of investment because it involves the making of an outlay and the awaiting of a deferred return. It is an exchange of present money for future money. We have now become quite familiar with the fact that if a long bill is to be discounted on its arrival abroad, a return can be had from it at home on the very day of its purchase (or at the worst perhaps, on the next business day) by an immediate sale of sight drafts against the proceeds of the discount as cover. Withholding the bill from discount means the postponement of this return. The whole operation becomes an investment because a period intervenes between outlay and return. For this period a certain amount of capital is, as the business expression goes, employed in the bill. On this capital the banker expects to make, and normally does make, a gain—a gain which is, of course *interest*. Investment cannot take place in sight bills or cable transfers, because no gain can be realized from the postponement of their conversion into cash abroad.

Sometimes the remittance of funds to a foreign country to be put out there in the purchase of bonds or notes, or in the making of short-term loans or advances, is referred to as an investment in foreign exchange. It is true, with the exception of a "dollar" loan made abroad, there is here an investment in an obligation to pay foreign money, and therefore the operation involves a risk of exchange, *i.e.*, a chance taken with respect to the rate of conversion of the recovered foreign funds back into home money; but there is not technically, and properly speaking, an investment in foreign exchange. The latter means an investment in an instrument that is itself a piece of foreign exchange, a bill. The investment in an obligation payable in foreign money, but not itself a foreign bill of exchange, is similar

to this, but not identical with it. The transaction is best thought of as a foreign loan with the risk of exchange taken by the lender.

Practically all foreign bills, sight or long, are drawn in two or more copies, the original reason being to make it possible for the sake of safety to hold one copy while transmitting another, or to forward different copies by separate mails. But in the case of an investment in a bill, the first and second of exchange are put to distinct technical uses.[1] The first will be sent abroad for acceptance only. The banker will omit to indorse this copy and will mark it "for acceptance only," which will signify that, while this acknowledgment by the drawee is to be procured, the bill is not to be discounted in the money market but is to be held by the correspondent subject to the orders of the remitting banker. If the drawee intends to honor the bill he will accept this first of exchange (receiving the documents if they are deliverable against acceptance), but when he comes to make payment at maturity he will expect the indorsed second to be surrendered to him along with the unindorsed but accepted first, the two copies together constituting the completed bill. Meanwhile, the bank that has purchased the bill, and is investing in it, will hold the second of exchange in its portfolio as the tangible representative of the asset which it is carrying, until the time when it decides to realize upon it by sale at home or discount abroad, or, at the latest, until the time when the instrument must be forwarded to reach destination by the date of maturity. When transmitted, this second will be indorsed, and should the owner desire to discount the bill at any time with any dealer abroad, it is understood that the latter will have a right to procure the accepted first from the correspondent holding it, upon making a demand

[1] According to Margraff. *See* his "International Exchange," pp. 61–2

and showing the indorsed second. Thus the foreign purchaser will come into possession of the completed bill which he will need to present to the acceptor for payment at maturity.

The fact that a banker purchasing a foreign bill intends to invest in it, instead of discounting it for immediate foreign cash, does not in the least reduce his motive to obtain the earliest possible acceptance. There is in the first place what we might call the legal reason for promptness. If the bill is of such a character that presentment for acceptance is required in order to bind the drawer in his conditional or secondary liability [2] (the ordinary form of long bill payable a designated period after sight is of this character), then the presentment for acceptance must be made with reasonable promptness if the drawer (or an indorser, if any, prior to the owner-bank) is not to escape his liability.[3] There is in the second place the financial reason for promptness. Every day's postponement of acceptance means a day's postponement of the date of maturity,[4] and this postponement produces no increase in the amount due at maturity. Hence, there being no compensation in the nature of interest for any delay, postponement becomes financially bad.

§ 80. **Computing the rate of interest received.**—The data required to compute the rate of interest received from an investment in exchange comprise

(1) the amount of home money invested in the bill, or what we have usually called the outlay,

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[2] Compare § 12.

[3] But the drawer or indorser does not escape if he makes a special agreement waiving his rights in regard to acceptance or promptness of acceptance.

[4] To this there is an exception in the case of bills drawn payable at so and so many days after *date* (instead of sight) or drawn payable at a named future date, but both these forms are compartively rare.

(2) the amount of home money in the end realized from the bill, or the return, and
(3) the time intervening between outlay and return.

It will be natural to jump to the conclusion that the investing banker's outlay consists of the price he paid for the bill. It is true that this is an outlay, but strictly speaking it is not *the* outlay in the case. The true outlay is the amount the banker could realize from the bill on the very day of purchase by selling sight drafts against it and discounting it on its arrival abroad. If, for instance, the banker has paid $48,020 for a 60 days' sight bill on London for £10,000, but could immediately realize $48,045 from it by the method of discounting it on arrival abroad, the latter figure, namely, the $48,045, is truly the amount invested, if the banker elects the alternative of investment. That is to say, he makes an investment of $48,045 of present money by foregoing this sum. This is the sum he gives up for the sake of the future return, and the wisdom of the investment depends upon the rate per cent. which the return yields upon this sum considered as the outlay. The $25 by which this exceeds the price paid for the bill is a profit derived from the purchase, which the banker gets whether he invests or not, and it is not, on correct principles of accounting, a part of the gain or interest received from the investment itself.

To obtain an illustration, let us assume the following facts, and compute the interest rate:

July 1	N. Y. banker purchases and invests in a 60 days' bill for £10,000, paying $48,020 for it.	
"	Rate for bankers' sight sterling.....	4.85
"	Arrival discount rate quoted in London.....	5%
"	Rate of interest for demand loans in New York	3%
July 9	Acceptance of bill by London drawee.	
Sept. 10	Maturity date, as fixed by this acceptance. (3 days of grace being allowed).	

We suppose, further, that the investment continues till the maturity of the bill, though, as we understand, it might be terminated at any intermediate date.

Sept. 2 Assumed earliest date on which sight drafts can be sold to be covered [5] by this acceptance which matures Sept. 10.
Sept. 2 Rate for sight sterling in New York..... 4.85

Net Cash Yield of Bill in Dollars if Discounted Forthwith in London

On the principle just explained, to find the theoretically correct amount invested we must find what could be realized from this bill in immediate cash by discounting it abroad on arrival. We proceed as follows: [6]

Net proceeds of this discount in London on July 9th.

£10,000 less 63 days' discount at 5% [7].....	£9,913.7
Tax and commission deducted by correspondent....	7.5
Net yield of bill to London balance, July 9.....	9,906.2

Dollar receipts from sale of sight sterling against this.

Sight drafts for £9,906.2 sold on July 1st, at 4.85, yield in N. Y.	$48,045.07

Dollar Return from Bill at End of Investment Period

Maturity value of the bill in sterling in London

Payment received from the acceptor on Sept. 10....	£10,000
Tax and commission	7.5
Sterling maturity value	9,992.5

[5] That is, to be paid for in London out of the receipts from the maturing acceptance.

[6] Compare §§ 64 and 65.

[7] The year is taken as 365 days throughout this example.

Dollar receipts from sale of sight sterling against this	
Sight drafts for £9,992.5 sold on Sept. 2d, at 4.85...	$48,463.62

SUMMARY

July 1st Amount invested (*i.e.*, cash foregone).....	$48,045.07
Sept. 2d Amount returned from investment	48,463.62
Difference, or interest gain for 63 days.....	418.55
This is *interest* on $48,045.07 at the rate per annum of	5.05%
As a *discount* of $48,463.62 this is at the rate per annum of	5 %

This computation is based on the supposition that the rate for bankers' sight sterling stands at the same figure on Sept. 2d as on July 1st, namely 4.85. This is very much of an assumption. The effects of a change of the sight rate during the period of the investment will be taken up in § 81. But the computation as we have it before us is an illustration of the fact that, if the sight rate remains unchanged, the investment earns the foreign money rate applicable to the bill in which the investment is made. This rate is a discount rate, and in the case in hand is 5%. The interest made in the investment turns out to be at the rate of 5.05% per annum, but this is the mathematical equivalent of a discount rate of 5%.[8]

§ 81. **The speculation on the sight rate of exchange.**— Since the dollar outcome from the investment depends upon the sight rate of exchange on the day of the sale (or assumed

[8] The gain in the example will not figure to a discount at precisely 5%. A slight deviation from this rate is produced by the manner in which we have found it most convenient to introduce the tax and commission charges of £7.5. For our purposes this matter is not worth the time it would take to ventilate it. If these charges are removed, or disregarded, the discount gain from the investment on this side of the water works out to precisely 5%. On the subject of the relation of the discount to the interest rate, compare §§ 14 and 17.

sale [9]) of the investing banker's demand drafts, the rate of interest gained in the operation is necessarily dependent upon this same rate of exchange. The character of this dependence is made plain in the table beneath.

RATE OF INTEREST REALIZED FROM AN INVESTMENT IN A SIXTY DAYS' BILL

Dollars Invested, sight rate being at 4.85 at time of the investment	Sight Rate at Time of Realizing on the Investment	Total Dollars Realized	Amount of Interest Yielded	Rate of Interest Yielded by the Investment
$48,045.07	4.84	$48,363.70	$318.63	3.83%
48,045.07	4.85	48,463.62	418.55	5.05%
48,045.07	4.86	48,563.54	518.47	6.25%

If the rate of exchange happened to be invariable we could lay down the rule that an investment in a long foreign bill will yield the foreign money rate applicable to this bill at the time of its arrival abroad. This is the London discount rate of 5% assumed in the example in the preceding section. But the rate of exchange is by no means invariable. The higher it turns out to be the higher will be the interest yield, and *vice versa*. With the exchange rate at

[9] If the banker omits to make this sale and so draw back home the sterling proceeds of the bill, he allows these proceeds to become a net addition to his foreign funds. But this supposition does not necessitate a change in the method of computing the rate of interest in the investment. The net addition to the foreign funds in this case comes without a contemporary expenditure of dollars for the purchase of sight exchange, an expenditure which would otherwise be required to produce the addition. This saving of dollars is the true theoretical return upon the investment. In amount it is the number of dollars needed to buy sight pounds in the open market equal to the net maturity value of the long bill. But this is the same as the number of dollars taken as the outcome in the computation in the text. In sum, the outcome from the investment is the number of dollars equivalent to the proceeds from the long bill in pounds, at the sight rate of exchange whether or not these proceeds are in fact drawn back into dollars by the banker.

4.84 at the end of the investment period, the table shows the interest yield to be only about 3.8%, but with exchange at 4.87 the yield will be about 7.5%. Yet more extensive variations in this figure would be produced if we took into account different rates of exchange at the beginning of the investment period. Thus, if the exchange rate were 4.87 at the beginning of the period, and 4.84 at the end, the interest rate gained in the investment under the conditions of our example would be less than 1½% per annum. We hasten to state that investment would be most unlikely with the sight rate so high as 4.87, precisely because the speculation on this rate would then be so distinctly unfavorable.

By way of summary: the first circumstance tending to produce investment in long sterling bills is a higher money rate in London than in New York. Unless the associated speculation on the rate of exchange seems unpropitious, the banker is attracted to this investment because he bids fair to make such funds as he places in long sterling bills earn a higher rate of interest than if employed in equally liquid and secure advances at home. Stated in another way, the existence of a higher discount rate in London tends to dissuade our bankers from discounting their long sterling bills there, which means they invest in them. The second circumstance tending to produce this investment is a low existing sight rate of exchange in our country on London. The lower this rate at the time of the investment the more attractive the speculation upon it which is involved in the investment, because the greater the chances that it will be as high, if not higher, at the expiration of the investment. Often the near future of the rate of exchange seems measurably predictable to the banker and dealer, and their disposition toward investment will be in large degree determined by their prognostications on this subject. The little chart beneath is self-explanatory.

INVESTMENT CONDITIONS

(Normal times assumed: *i.e.*, limits of fluctuation of sight sterling about 4.84 and 4.88)

Very favorable to investment	*Very unfavorable*
London money rate say 5% while New York money rate is 3%	London money rate say 3% while New York money rate is 5%
Sight sterling in New York at 4.84 with indications of a rise due in the near future	Sight sterling in New York at 4.88 with indications that it will fall

The causes of the high discount rate or tight money market in the foreign country should, of course, be scrutinized by the banker who has in contemplation the purchase of long bills on that country for investment. In his "International Exchange" (page 60), Margraff warns against investment on the basis of a high discount rate produced by the danger of financial or economic disturbances, as contrasted with one produced by brisk commerce. During the panic of 1866, Paris bankers refused to invest in long sterling bills when the Bank of England rate stood at 10% and the open London rates were correspondingly high. Such of these bills as the French dealers in exchange purchased, they discounted immediately in London, despite the excessive discounts taken out there. This was due to distrust of London conditions. This distrust disappeared when the Bank of England finally reduced its rates towards the normal level and thus "gave proof of its own returning confidence." [10]

§ 82. **Termination of investment prior to maturity.**—In any times approaching the normal a long sterling bill of good rating can be sold in the London money market, at one rate of discount or another, on any day within the life history of the instrument. (Documentary payment bills as

[10] Compare Clare's "A B C of the Foreign Exchanges," pp. 97–9.

a class are not discountable under English banking custom and therefore must be mentioned as an exception to this statement.)[11] In buying long sterling our bankers presumably confine their purchases to the discountable class of bills (except again for such documentary payment bills as they purchase), and take the inferior class for collection only. Thus, in such sterling bills as they hold for investment purposes, they have assets of a particularly liquid character.[12] If, for illustration, a New York banker has a 90 days' bill on London which he has been holding for perhaps 20 or 30 days, and he decides to realize upon it at the present moment, he may put it in to-day's English mail and to-day sell sight sterling against it, thus converting it forthwith into dollars. Naturally, the desirability of this step will be much influenced by the contemporary position of the London discount rate and of the rate for sight sterling in New York, but the point is the conversion can, if necessary, be made at any time. Until recent times this liquidness of foreign bills distinguished them pretty sharply from the other *domestic* commercial paper held by American banks. While this distinction is doubtless still of consequence, its importance is on a fair way to be much reduced by reason of the development of our Federal Reserve Banks and the accompanying growth and alteration of methods in our home money market. That is to say, domestic commercial paper eligible for rediscount under our new law and practice, becomes like the long foreign bill in liquidness.

Its own special and individual need for cash, due perhaps to an unusual demand from its depositors, might lead a bank to abandon its investment in a foreign bill before the instrument has had a chance to reach maturity.

[11] Compare §§ 67 and 94.

[12] Other long foreign bills than sterling, held for investment, are also presumably subject to this observation.

The possibility of doing this is what we have in mind when we speak of the advantage of liquidness which is possessed by this bill as an asset. But a sufficient change in the governing conditions might lead to a general termination of investments in foreign exchange on the part of banking institutions, not because any of the banks had fallen under a compulsion to procure cash for safety's sake, but because this termination will pay in dollars and cents.

In the first place this action might be produced by a shift in the relative positions of the London and the New York money rates, that is, by a sufficient fall of the former or rise of the latter. In the illustration in the preceding section we had a New York bank purchase and invest in a 60 days' sterling bill on July 1st, when the London discount rate applicable to this bill was at 5%, and the New York money rate [13] was at 3%, and sight sterling in New York was at 4.85. By way of modification of this example assume that on August 3d the London discount rate has fallen to 3½%, and that the London correspondents are quoting this same figure for bills to arrive, or quoting it as a forward discount rate, and assume also that the New York money rate has ascended to 4%. It will now pay to abandon the investment. The explanation is, in brief, that from this time forward a continuation of the investment will yield only 3½% on the funds which may be recovered from it and which may be employed forthwith at 4%. However, lest this explanation, sounding almost too simple, should be subject to suspicion, we had better verify it by means of an arithmetical computation.

[13] This means (among all the money rates of New York) the particular rate which is obtainable from an employment of funds judged by the bank in question to be equally desirable with investment in long sterling from the standpoint of liquidness and security; in general presumably the rate on call or short loans against good collateral.

On August 3d, then, the bill is started to London, sight sterling being sold against it on this date, and it arrives and is discounted, we may suppose, on August 11th. We need first to know the dollar proceeds of this discount.

DOLLAR PROCEEDS OF DISCOUNT

Maturity value of bill, due Sept. 10		£10,000
Less 30 days' discount at 3½%		£ 28.77
Discounted present worth in sterling		£ 9,971.23
Less tax and commission		£ 7.5
Credit available for sight draft on August 3d		£ 9,963.73
Yield of this sold out at $4.85 per pound		$48,324.09

On August 3d the bank may reason as follows: If we realize on this bill to-day we get $48,324.09. If we hold it till maturity, and the sight rate remains where it is now, we shall realize $48,463.62 on September 2d, or 30 days hence. (Compare illustration in preceding section.) Therefore, unless we care to speculate upon the sight rate's being higher and thus more favorable on September 2d than now,[14] continuation of the investment will be equivalent to giving up $48,324 of to-day's money to receive a return of $48,463 thirty days hence. But this particular exchange of present for future money yields interest at only 3½% per annum. Therefore we had better terminate the investment and employ the funds derived from it in the home market at 4%.

The bank, having taken this step, may now be interested to learn what rate of interest it has secured for the period during which it did invest in the bill. It made an outlay of $48,045 on July 1st (as already explained on pages 50–1), and has just obtained on August 3d a return of $48,324.

[14] But *see* § 91 below on the possibility, in this connection, of sale of sight exchange for future delivery.

This gives an interest gain of $279 received for the employment of $48,045 for 33 days, making the interest rate 6.4% per annum. Up till August 3d the investment was excellent, although after this date it becomes unprofitable. When the investment was inaugurated the foreign money rate was at 5%, and yet the outcome has been a higher rate than this, namely, 6.4%. This outcome has been made possible by the reduction of the foreign discount rate from 5% to 3½%. If in the domestic money market an operator can purchase long paper under a 5% discount rate, and subsequently rediscount it at a reduced rate, as 3½%, he will always make a rate of interest on his money, for the time it was employed, better than the initial discount rate (compare example B 4 from § 15, on page 47). This is essentially what our bank, investing in the long sterling bill, has done, though the details are a trifle more complex in the case involving foreign exchange.

It was stated that an investment in a long foreign bill might be abandoned prior to maturity, in the first place because of a shift in the relative positions of the foreign and the local money rates. It remains now to note that independently of any such shifting, a sufficient rise in the sight rate of exchange on the foreign country may tempt the banker to take the same step of abandonment of the investment. Thus, amending our former illustration once more, suppose that while on August 3d the London discount rate remains at 5%, where it was at the inauguration of the investment, sight sterling in New York has ascended to 4.88. The bank will be under strong temptation to discount the bill to arrive (say on August 11th, as assumed before) and sell demand against it on August 3d at 4.88. If it were certain that 4.88 could be procured for demand at the maturity of the investment, the reasons for continuing it would be unimpaired; but let us suppose the bank feels there is no such certainty and sells out on the

3d. It then concludes the investment with an interest yield of 13%, computed as shown below.

Outlay in dollars, July 1st, as already explained....		$48,045
Return in dollars, August 3d, or 33 days later.....		
Credit available for sight draft on this date	£9,963.73	
(As shown in last preceding example)		
£9,963.73 sold at 4.88 bring in.....		$48,623
Excess of return, or interest.....		$ 578
For 33 days, this is interest on $48,045 at the rate per annum of		13% plus

CHAPTER XII

BORROWING BY MEANS OF EXCHANGE

§ 83. The "dollar" loan by a foreign bank in New York.—As already intimated, we do not, in addressing ourselves to borrowing *by means of foreign exchange,* have reference to the ordinary and more familiar types of borrowing across national boundary lines, but to a certain special and technical operation with a long foreign bill whereby a local banker manages to obtain the use of a fund at home for the term of the bill. The instrument in question, the so-called "finance bill," is drawn by a banker upon a banker, and is somewhat sharply distinguished from the long bill arising out of an export of goods and drawn by a merchant (whether upon a foreign merchant or a foreign bank). We speak of borrowing *by means of exchange* for the reason that (treating countries as units) the borrowing country sells the lending country no securities, such as bonds or stocks or notes, but *merely deals in exchange upon it.* In these operations bonds or stocks are usually deposited as collateral with the foreign accepting bankers (or their local agents), but such deposits are in no sense sales.

Borrowing by means of exchange is not a procedure which must by its very nature be confined to *foreign* exchange. While details vary, it comes fundamentally to borrowing by means of an acceptance which is granted to your long bill by some one else (not acting in the capacity of your debtor) for the purpose of enabling you to sell the instrument for local funds. You do not borrow from, but merely by the aid of, this one who does the accepting. The accept-

ance in this case is of the kind known at law as an "accommodation acceptance." There is nothing in the nature of the whole operation precluding resort to it within purely domestic limits so that it would involve and produce purely domestic exchange. But, in fact, it has little development in connection with domestic exchange, none within the United States, and is of consequence only in the field of foreign exchange.

Let us first consider a so-called "dollar" loan made or placed in New York by a foreign bank. Described in more general terms, this is a loan by a banker of country A made in country B in terms of the local currency of country B.[1] The cause for any general placing of such loans will be the existence of higher discount or interest rates in country B than in country A. Throughout the discussion we shall choose dealings between London and New York as illustrations.

Assume the following data:

Money can be loaned in New York for quarter-year periods on excellent security at	5%
Discount rate in London for bankers' 90 days acceptances	3½%
Rate for sight sterling in New York	4.87
Rate for 90 days' sight sterling in New York	4.8240

An English bank has an agent on our side of the water which knows of an institution in New York that is ready to pay 5% per annum for a loan of from forty-five to fifty thousand dollars for a period of 90 days or thereabouts.

[1] We speak of the foreign bank initially interested in the operation as "making" the loan. In the case before us it does in a sense *make* the loan, but it does not, nevertheless, bear the burden of the cash advance. To bear this burden would mean to be out present money (cash or money funds) in return for future money. But this bank is not, in consequence of the operation *as an entirety*, out any present money. *See* the text.

An opportunity for profit being perceived, the agent is instructed to draw upon the English bank, its principal, a bill for £10,000 at 90 days' sight, to sell the bill forthwith in New York for dollars, and to place these dollars as a loan for 93 days with the New York house in question. Assume that this is done on the first of March. The bill, being sold at 4.8240, yields $48,240. This sum, loaned out at 5% for 93 days (the term of the bill including the days of grace), earns $623 of interest, and on June 2d a total repayment of $48,863 will be made to the agent. It becomes the latter's immediate duty to expend this for sight sterling and remit the same to the London principal to be used to pay off the bill for £10,000 which was originally drawn. This instrument, having been accepted in due course on March 8th, became payable on June 9th, and the sight sterling started from New York on June 2d or 3d will have time to reach London by the 9th. Without any specially untoward calendar of steamer sailings, the loan on this side can be made for the full number of days of life of the acceptance on the other side, in this instance 93 days.

Clearly the outcome to the English banker, who has engineered this operation, depends upon the position of the New York rate for sight sterling on June 2d. If we assume that at the end of the loan this rate stands at 4.87, where it was in the beginning, we may make up the following account:

OUTCOME OF THE OPERATION TO THE LONDON ACCEPTING BANK

March 1	Amount of the 90 days' draft on this bank sold in New York	£10,000
March 1	Dollars received from the same and loaned out	$48,240
June 2	Dollars returned from loan including interest	$48,863

June 2 Amount of sight sterling purchased with latter, at 4.87 ..... £10,033

Profit ..... £ 33

The effect of a deviation of the sight rate from 4.87 at the end of the loan period is illustrated by the figures beneath.

Rate for Sight Sterling on June 2	Amount of sterling purchased with $48,863	Profit of the London accepting bank
4.88	£10,013	£13
4.86	£10,054	£54
4.84	£10,095	£95

The London accepting bank has acted as principal and risk-taker in this enterprise, and the gain, if any, goes to it. This gain is not *interest*, for the reason that the said bank does not, as a result of the operation as an entirety, make any advance of its own funds. It is not *commission*, for the reason that it is not a stipulated fee received from some outside person or establishment for a service rendered. It is *profit*. And as profit, the primary variable upon which it depends is the New York rate for sight sterling on the day of maturity of the loan. On this day the London bank comes into the ownership of a contractually predetermined number of dollars in New York, namely, $48,863. Its scheme is to convert these into sight sterling bills which, when received in London, will serve to discharge its acceptance for £10,000. Any profit which it may glean will consist in an excess of the sterling so purchased over the £10,000 required. Clearly, the lower rate or price for sight sterling in New York on the critical day, the greater the number of pounds of it that can be bought with the fixed sum of dollars, and the larger the surplus or profit. In this case, then, though the burden of the advance *is not*,

the risk of the exchange *is* shouldered by the accepting bank. This institution may hedge at the time of placing the loan, if it chooses so to do, by making a contract to buy sight sterling in New York for future delivery (*see* § 91 below).

The New York bank or trust company which has served in the capacity of agent puts out no funds of its own and takes no risks. Whatever compensation it receives for making the immediate arrangements and taking charge of the collateral put up by the borrower, will be in the nature of a commission paid by its principal in London and chargeable by the latter against the profits which the venture has afforded.

The New York borrower has received a loan of some forty-eight thousand dollars for 93 days. Although these dollars undeniably came in the first instance from the company we have called the agent, neither this company, nor its principal in London, is the true lender. The true lender must be that party who holds the long sterling bill during the length of its life, who invests in it. The normal history of the bill would be this: the banker who buys it in New York forwards it immediately to his London correspondent for discount and cash credit, and forthwith recovers what he has laid out in it, either by the sale of sight sterling against it, or by the refraining from the purchase of sight sterling which he would otherwise have had to buy. He makes no advance for a deferred return. Some money dealer in the London market, unidentified so far as our illustration goes, comes forward to discount the instrument after it has been accepted by the drawee bank. This money dealer is the real or ultimate lender. The borrower in New York has a loan, while this party in London does the corresponding waiting.[2]

[2] The dollars received by the borrower from the agent of the London accepting bank are no doubt the property of the latter. This leads us naturally to speak of the accepting bank as "making"

It is true this history might vary in some particulars. The banker who first buys the long sterling bill in New York, could refrain from discounting it in London and could hold it as an investment, in which case he would become the ultimate lender. But this would hardly be normal, because a banker on our side would not be likely to invest in exchange at a time when our local money rates are higher than the London discount rates, namely, at a time when our borrowing by means of exchange is appropriate. Another and more natural variation would be for the New York agent which draws the long bill to forward it to London instead of selling it for cash on this side. This agent may have other correspondents in London than the bank upon which it has drawn. It may send the bill to one of these for discount and itself sell sight sterling against it, and in this manner procure the dollars to lend out in New York.[3]

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the loan. It certainly appears as lender if we take into view only what happens in this country. But the very dollars loaned came from the sale of a bill which the London acceptor does not pay until the repayment of the loan on this side of the water has taken place and has provided it with the necessary funds. In other words, as a result of the operation viewed in its entirety, the accepting bank makes no advance of cash or of its own funds. If it lends dollars in New York, it is itself the recipient of a virtual loan of dollars through the offices of the party in London that discounts the long bill for the one who bought it and paid dollars for it in New York.

Should the London bank, still acting as principal, and still conceiving and engineering the operation, desire to take the burden of the advance as well as the risk of exchange, it might do so by changing its procedure. It might, for instance, say to its agent in New York, "Sell £10,000 of *sight* drafts on us, and lend the dollars which they fetch, $48,500 say, in your money market for three months. When you receive these dollars back with interest, convert the whole into sight sterling and forward it to us."

[3] There is no purely *legal* reason why the long bill should not be sent to the very London bank upon which it is drawn to be offered

§ 84. The "sterling" (franc or mark) loan.—The *sterling* loan bears its name because the borrower receives a stipulated amount of long sterling (or the proceeds in local money from the sale of this) and agrees to make a repayment in the same amount of *sight* sterling. The period of the loan is the length of the life of the long sterling bill drawn to effect it. The object and effect of the arrangement, as contrasted with the dollar loan, is to throw the risk of exchange upon the borrower. To illustrate: The New York agent of the London accepting bank draws upon the latter a 90 days' bill for £10,000, and delivers this instrument, or the forty-eight odd thousand dollars it will fetch on the market, over to the New York borrower against a deposit of collateral. The latter agrees to make a repayment of £10,000, plus a commission of say ⅜ of 1%, in bankers' demand sterling bills (or in dollars enough to buy them, this being a mere matter of detail). The £10,000 is the amount or face value of the *long* sterling turned over to the borrower. Upon the fact that it is repayable in *sight* sterling hangs the whole story. The commission of ⅜ of 1%, or whatever per cent. it may be, is the fee of the London bank for granting its acceptance. The borrowing bank makes no payment of a stipulated or contract amount of interest to any party. Nevertheless, for a reason that will soon appear, the loan will cost it interest.

Taking the same data with respect to rates for money and exchange as in the last preceding section, we now assume that the borrowing bank proceeds to sell the 90 days' bill which has been delivered to it. It sells at 4.8240 and receives $48,240 for immediate employment at home. Ninety-three days later the bank will be obliged to return £10,000, plus ⅜ of 1%, or £37.5, or a total of £10,037.5, in bankers' sight bills on London. If the rate for such

on the money market by this bank itself. But so far as the writer knows, banks never like to offer their own acceptance for sale.

bills stands at 4.87 (which accords with the first assumption made in the preceding section) this sterling will cost it $48,882.63. The following then will be an account of the operation:

INTEREST COST OF THE LOAN TO THE BORROWER

Dollars received by borrower at the beginning.....	$48,240.00
Dollars required to discharge obligation at maturity..	48,882.63
Difference, or 93 days' interest cost on $48,240.....	$ 642.63
Rate of this interest cost per annum.....	5.23%

SAME WITH SIGHT RATE AT 4.84[4]

Dollars received by borrower in the beginning.....	$48,240.00
Dollars required to discharge obligation at maturity.. (£10,037.5 × 4.84 = $48,581.50)	48,581.50
Difference, or 93 days' interest cost on $48,240.....	$ 341.50
Rate of same per annum.....	2.78%

This example shows that if the sight rate were at 4.87 at the beginning of the loan period (and the rate for 90 days' sterling at the correspondingly high point of 4.8240) and that if the sight rate had fallen to 4.84 at the expiry of this period, the loan would cost the borrower only 2¾%. As a case favorable to the borrower, this is a very strong one, but it serves to make clear the importance of the risk of exchange in connection with the interest cost of a sterling loan. After having obtained the loan, the borrower is in effect short of sight sterling—that is, under a commitment to buy a sum of this exchange at a future date. It is possible to hedge by buying sight sterling for future delivery (*see* § 91). But if the borrowing house does not hedge against this risk, the rule is, the cheaper sight sterling at the maturity of the loan the better for it. The

[4] At time of expiration of the loan.

rule is also that the higher sight sterling, and consequently also long sterling, at the time it contracts the loan, the better for it, because the greater the number of dollars it will receive at the beginning against a commitment to deliver a stated amount of sterling at the end.

In the case of the sterling loan, as in the case of the "dollar" loan, the real lender is the institution in the London money market which discounts and carries the long sterling bill from acceptance till maturity. The explanations given before apply here as well.

In the case of the sterling loan, the accepting bank in London makes a commission merely. It takes no risk of exchange and makes no profit. There is due it £37.5 for the service rendered by accepting. This is compensation for that other kind of risk than a risk of exchange, which it takes in assuming liability to pay the bill before being provided with cash to make the payment. It is true it has the promise of the American borrower. Also, the risk is reduced by reason of the deposit of collateral.

In the past, French and German banks have sometimes made loans in New York under the same general plan as that followed by the London banks. They may make "dollar" loans, or they may make "franc" or "mark" loans, the latter corresponding in nature and effect to "sterling" loans.

§85. The borrowing bank's sale of its own long bill.—Continuing with the subject of long exchange as a means of procuring a virtual loan from the foreign money market, the bill in the case, as heretofore encountered, has been one drawn by the local agent of the London accepting bank. The borrowing bank's sale of its own long draft gives rise simply to a variant form of the sterling loan.

If, for example, a New York bank or exchange house, having an acceptance account with a bank in London (compare pages 144–7) and therefore having the power to draw

long sterling, sells its 90 days' bill for dollars to-day and expends dollars some 93 days hereafter to buy sight sterling for cover, it obviously has a virtual loan. It has, as the saying goes, 93 days' "use" of the dollars first procured. Its motive, it is true, may be primarily to speculate for a fall in the rate for demand sterling rather than to procure the use of funds, but whatever be the motive, it does have the use of the funds.

The explanations regarding risk of exchange, and the possibility of hedging, applicable to the sterling loan placed through an agent, and already given, are also applicable here. They need not be repeated in extended order. But to avoid being too concise in handling these technical subjects, it will be well to give one illustration involving a draft by the borrowing bank itself.

CALENDAR AND ACCOUNT OF THE OPERATION

June 1 90 days' draft for £10,000 drawn and sold by New York bank

Sight sterling rate in New York..... 4.85

London discount rate for this bill.... 3½%

90 days' sterling rate in New York... 4.8040

The draft is sold by the drawer to a new York buyer for $48,040

The buyer forwards it to his correspondent in London for discount in the London market and cash credit.

June 8 The draft arrives in London and is accepted by the drawee bank. This sets the maturity date on Sept. 9th (93 days later).

Sept. 2 Day to buy in sight sterling as cover.

The New York drawing bank is obligated to put the London drawee bank in funds to enable it to discharge the acceptance on Sept. 9th. Its deposit with the latter might be so large on this date that a special re-

mittance of sight bills as cover would be unnecessary; that is, the London bank might be able to reimburse itself from this balance without the balance being specially fortified to stand such a drain, but this is unlikely, and in any case we have to assume the special remittance of cover, to find the outcome and interest cost of the operation. This cover must be bought and mailed in time to reach London on Sept. 9th.

Sight sterling in New York still at 4.85		
Total cover required		
To discharge acceptance.....	£10,000	
To pay commission for acceptance	37.5	
(At assumed rate of ⅜ of 1%)		
	£10,037.5	
Cost of cover at 4.85 (10,037.5 × 4.85)...		$48,681.87

SUMMARY

Dollars received by borrowing bank on June 1.....	$48,040.00
Dollars paid out to discharge obligation, Sept. 2.....	48,681.87
Difference, or interest cost for 93 days.....	641.87
Rate of this interest per annum (on $48,040).....	5.24% [5]

§ 86. **The spread between the local and the foreign money rates.**—The interest cost of the loan just discussed (or virtual loan, speaking more precisely) turns out to be 5¼%, when the London discount rate is but 3½%. The rate of exchange stood at the same figure at the end as at the beginning of the operation, and therefore neither advantage nor disadvantage has come out of the risk of exchange. What is the cause then of the interest cost's being so much in excess of the foreign money rate? The main cause is

[5] Computed on the basis of 365 days to the year.

the acceptance commission which the New York borrowing bank must pay. A minor cause is the English stamp tax. Then again, the full theoretical worth of the 90 days' sterling sold by our bank on June 1st was $4.80435 per pound, whereas we supposed the sale to take place at the next even rate below, namely 4.8040, which gives a slight profit to the New York buyer of this exchange. All taken together, the interest cost is 1¾% above the London discount rate.[6] Of this, 1½% is due to the acceptance commission. To explain: the acceptance commission assumed in our illustrations is ⅛ of 1% per month of life of the accepted bill, or ⅜ of 1% for what was (roughly) a three months' bill. These commissions vary, but this is a common figure. (As to the reason why the amount of commission increases with the term of the bill, *see* § 50, page 181.) A charge of ⅛ of 1% per month is one running at the rate of 1½% per annum. Thus a sterling loan will cost the New York borrower 1½% per annum above the London discount rate, because of the acceptance commission alone.[7] Therefore, it is evident that the sterling loan does not pay an operator on our side of the water unless one of two things make it pay, namely, either (1) a somewhat greater excess of the New York over the London money rate than 1½%, or (2)

[6] A small part of this excess is also due to the fact that the London money rate is a *discount* rate, while what we are here computing is an *interest* rate.

[7] If the borrower uses a quarter-year bill, the period of his loan is a quarter of a year. The commission will be ⅜ of 1%. This is, precisely speaking, ⅜ of 1% of the face value of the sterling bill, but since the rate of exchange between dollars and pounds ordinarily fluctuates within a small compass, it will necessarily at the end of the loan require an expenditure to pay it, amounting very close to ⅜ of 1% of the dollars originally borrowed. Whatever percentage the extra dollars (required at the end to buy the extra sterling to pay the commission) bear to the dollars originally secured, this percentage is interest cost. An interest cost of ⅜ of 1% per quarter is one at the rate of 1½% per year.

an attractive speculation on the future course of sight sterling in New York. The illustration on page 366 shows a case where a very fortunate speculation on this rate reduced the interest cost of a sterling loan to 2¾% per annum!

It appears then by way of summary that a London bank will grant its acceptance to a bill drawn and sold in New York for the purpose of putting some New York house in funds for a period equal to the term of the bill. Sometimes the instrument is drawn by a mere agent of the London bank, sometimes by the New York borrowing house itself. The London accepting bank does not make the advance of actual funds or cash which enables the American borrower to enjoy a loan. As the saying goes, it merely lends its credit. It does this by becoming unconditionally bound to pay the long bill in the case, that is, by accepting this bill. It is this giving of the strength of its name to the instrument that enables it to be sold so readily and at such a favorable rate in the London money market. It makes a profit in the case of the dollar loan where it takes the risk of exchange, and a commission in the case of the sterling loan where the borrower takes the risk of exchange. The actual advance of cash or funds which makes possible the enjoyment of the virtual loan by the New York house, is made by the party in London that discounts the acceptance there. It is the action of this party which makes it possible for any exchange bank in New York to pay dollars for the long bill on the day of its creation without itself making an advance of present money for a deferred return, for it is this which enables the said exchange bank to recover its dollars immediately by the sale of sight sterling.

When the English banker, proposing to accept one of these loan bills drawn by his own agent, shows his preference as between the dollar loan and the sterling loan, we

can infer his opinion with respect to the probable future course of sight sterling in New York. A preference for the *dollar* loan is a clear indication that he anticipates low sight sterling at the end of the loan period. For if he places a dollar loan, this is the position of the sight rate that would benefit him most. The cheaper demand bills on London may be at the end, the more of them will be procurable for the fixed number of dollars to be received back, and consequently the larger the excess of this sterling over the amount required to discharge the maturing acceptance. A reluctance to make dollar loans, or what is the same thing, a preference for sterling loans, shows naturally a belief in the contrary future for sight sterling in New York.

The interests of the New York borrower, with respect to the choice between dollar and sterling loan, run exactly counter to those of the English acceptor. If demand sterling turns out cheap at the end of the loan period it will be best for him if he has agreed to a sterling rather than a dollar loan, and *vice versa*.

§ 87. **A joint-account transfer of loanable funds.**—In the case of most operations in exchange involving activity on the part of a given bank and its foreign correspondent, one institution assumes the risks (such as they may be) and takes any gains, while the other acts as a mere depository or agent, or grants an acceptance for a commission. But it is possible for the two banks to establish, for the purposes of any transaction, what is known as a "joint-account." A joint-account operation in foreign exchange may be defined as one which is effected through the coöperation of two banks or exchange houses in different countries under an agreement to share in common the risks and the gains involved. It would appear that these are usually divided half and half, rather than in any other proportion.

Joint-accounts are more particularly appropriate in connection with borrowing by means of exchange and arbitrage of exchange. When, for instance, money rates are higher in New York than in London, two banks, one in each of the cities, may form a joint-account to pump loanable funds, as we may express it, from the one place to the other. The two coöperators take action to make something for themselves out of an opportunity which the conditions present. One draws and the other accepts. From the language sometimes employed in the prints of London, one would gather the idea that the two were conspirators. They do conspire, or at least make common cause, but it is difficult to see what is reprehensible in their acts, for these amount simply to a form of trading, fundamentally a form of arbitraging or equalizing, to which, under analysis, practically all trading reduces itself.

The illustration to be given beneath shows not only a joint-account (which of itself is so simple as hardly to justify an independent example), but also shows a new use for the banker's long bill, that is, a use different from any heretofore considered in this book. Suppose that on a given day, as July 1st, the Bank of A of New York has the following facts before it:

Sight sterling in New York at..... 4.8745
London arrival discount rate for bankers' 90 days' bills 3%
Consequently 90 days' bankers' bills in New York at.. 4.8350
The American XL Company's one-year 5% gold notes now having just 6 months to run can be bought in a large amount at 99.51, which is on a 6% basis.

The bank now falls to reasoning in this manner: "Sight sterling is high. London discounts are low compared with rates in our money market. We can sell a 90 days' sterling bill at a very good figure indeed to-day. [This figure

is high for the double reason that the sight rate, from which it is derived, is high, and the spread from the sight rate down to the 90 days' rate is a narrow one because the London discount rate is low.] We can buy the notes of the XL Company, which we regard as a high class investment, at a price to yield us 6% if we hold them till their maturity 6 months hence. These notes are a desirable purchase on this basis, but since we believe that in three months or so they will sell on a lower basis, as about 5%, they become still more attractive, in our view, as a present purchase. If our anticipation proves correct, we could sell them out at the end of the three months at such a price as to yield us better than 6% for the time we carried them. It would seem good to arrange with our correspondent, the Bank of B of London, to carry on joint-account about a half million of these notes by means of our 90 days' sterling bill. The chances for profit are enhanced by the probability that sight sterling will not be above 4.85 three months hence.

Assume that by an exchange of cables the joint-account is established on July 1st, and the initial steps in the enterprise are taken. Assume further that when the day arrives for buying in the cover, the predictions of the Bank of A are fulfilled, so that the notes are selling on a 5% basis, and sight exchange can be bought for 4.85. The following results:

CALENDAR OF THE OPERATION

Price of the notes

July 1st The notes, which bear interest at 5%, payable semi-annually, have just 6 months to run. They will pay 102.50 at maturity, 100 for principal and 2.50 last interest installment. They are selling to-day at..... $ 99.51
or on a 6% basis.

Oct. 2d	On this date these notes can be sold on a 5% basis, or for a price which as figured by practical dealers will come to this: [8]		
	"Flat" price	100.00	
	Accrued interest	1.26	101.26

Transactions of Bank of A

July 1st	Buys $500,000 par of notes at 99.51 at cost of	$497,550.00
	Sells £102,906 of 90 days' bills at 4.8350 for	497,550.50
Oct. 2d	Sells $500,000 par of notes at 101.26 for...	506,300.00
	Buys £102,906 sight bills at 4.85 at cost of..	499,094.10

SUMMARY

Receipts

July 1st	From sale of long sterling.	$497,550.50	
Oct. 2d	From sale of notes.....	506,300.00	$1,003,850.50

Expenditures

July 1st	For the notes	$497,550.00	
Oct. 2d	For sterling cover	499,094.10	
	Balance PROFIT	7,206.40	$1,003,850.50

The operation as an entirety yields a profit of $7206.40, which is, owing to the agreement for a joint-account, divisible between the two banks. We speak advisedly of this gain as *profit*. It is true, had the Bank of A invested its own funds in the notes, the account would have to be made up as follows:

July 1 Outlay, amount paid for notes.....	$497,550
Oct. 2 Return, received from sale of same.....	506,300
Difference, or interest on investment for 93 days...	8,750
This is interest on $497,550 at rate of.....6.9% per annum	

[8] This every-day method of adding accrued nominal interest to flat prices gives an incorrect result. Usually the error is very small.

The gain received from their sale at the advanced price (which they attained as they approached maturity) would be interest on the amount invested. But in the operation taken as an entirety neither the Bank of A on this side, nor the Bank of B on the other side, made the slightest advance of actual cash. What they did was to combine their forces in an exchange operation whereby they virtually borrowed money at the low London discount rate and employed it in New York at the higher rate there prevailing. They took the risk of exchange, to be sure a relatively slight one in this case because sterling was so high when they sold it in New York it was hardly likely they would have to buy it back at dearer rates. They took the risks such as they were in connection with the notes. For instance, had these notes suddenly become worthless while in the ownership of our two banks, the loss to these institutions would have been about one-half million dollars. The gain they actually reaped was profit. It has the appearance of something received for nothing. In this it is like any other pure profit. To borrow cheap and lend the same funds at an advanced rate is a procedure open to any one with sufficient credit if opportunity presents itself. The mere commercial bank virtually does this when it lends out the fund constituted by its deposits.

If when October 2d comes round conditions should make unadvisable a termination of the investment in XL notes, its extension can be effected by replacing the expiring long bill by another, a species of refunding.[9] To explain: the dollars required on October 2d to buy sight sterling cover for the maturing 90 days' bill originally drawn, might be procured by the sale of a second 90 days' bill. This postpones for a quarter the necessity of realizing

[9] Refunding being strictly the discharge of one long-term, large, and systematically issued debt by the creation of another to replace it.

upon the security in which the fund transferred from London has been placed. In conclusion, it may be said such extensions or renewals of virtual loans effected by means of foreign bills are not uncommon, whether the operation has been on joint-account or not.

§ 88. **American loans in foreign monetary capitals.**—The distinction between loans by means of exchange or by means of the long bill, and ordinary international loans has been explained. Such loans by means of exchange as we have considered have consisted in the placing in New York of loanable funds derived from London. The reader should understand, of course, that as a mere matter of mechanism the procedure which has been described is reversible. If, for example, London or Paris made a practice of dealing in long dollar bills on New York, they could on occasion make virtual borrowings from our money market in quite the same manner as we have supposed New York to borrow from London. Just at present (1919) the New York money market and "dollar exchange" have not developed to the point making this a regular and well known phenomenon. On the other hand, the making of ordinary short-time loans in foreign places by American banks is nothing new. Should money rates be higher in London than in New York, an American bank might place funds in the former city, but it would have to transfer the funds to the place where loaned by a remittance of sight bills (or some equivalent operation in exchange) and to re-transfer them home at the end of the loan by a sale of sight bills (or some equivalent). It would thus, as an actual lending institution, shoulder the burden of the advance. It would be out the use of funds at home for the period for which the foreign borrower would be having their use. If it made a sterling loan, it would assume the risk of exchange; if a dollar loan, the borrower would take the risk.

§ 89. Observations on the "finance bill."—The term "finance bill," is comparatively recent, but much used. From time to time before the war we would read that "the London market is flooded with American finance bills," or that "London bankers are discriminating against American finance bills," or that "the Bank of England is refusing to rediscount bills for London houses suspected of buying American finance bills." Opinions appear to differ as to the exact meaning of the term, but one thing is clear, and that is that every finance bill is a long draft drawn by a banker or exchange house upon a foreign banking or accepting house; in brief, it is a bankers' long bill. But not every bankers' long bill is a finance bill. Thus, if a banker who has purchased a non-discountable documentary payment draft draws his own long bill as a means of recovering the cash thus laid out, it would not usually be held that he created a finance bill.

As pointed out in § 35, the documentary payment bill, or time bill on a merchant, with documents attached and deliverable only in return for payment, is subject to the commercially recognized right of prepayment under rebate, and is not discountable in the open money market of the city on which it is drawn. In England this bill has not even been discountable with the correspondent to which it is remitted. This is a matter of English banking custom. The American houses that have purchased such instruments have been unable to realize sterling cash upon them until maturity, or until the drawees have seen fit at their own options to make prepayment. One method, however, of effecting an immediate recovery of the dollars expended on this side of the water for such bills, is for the banker to sell his own long bills against the same as collateral. He counts upon the proceeds of the documentary payment bills, either when prepaid or paid at maturity, to provide the funds to discharge the long bill or

bills which he has drawn. He can make certain of this, except in cases where the insolvency of the drawee of a documentary payment bill intervenes, by seeing to it that the maturity of his own long bill is as late as, or later than, the maturity of the underlying trade bills.

This type of bankers' long bill is drawn for the purpose of recovering funds that would otherwise have to remain invested in certain exporters' exchange that has been bought. In other words, the purpose is to avoid an investment in exporters' bills, or to shift the burden of the advance, or the burden of waiting, to the London money market.

Now "to finance" any enterprise, venture, or undertaking, means to provide in advance the necessary funds and await the deferred return ultimately to be regained from the undertaking. If an American banker invests in an American exporter's long bill on a London consignee, this banker helps finance the shipment of the goods in the case. He provides the exporter with present funds and awaits a deferred return. But if, instead, our banker sells his own long bill against the trade bill as collateral, he shifts the burden of the advance to the party in London that discounts the said banker's long bill. This case can be analyzed as follows: our banker makes an advance to our exporter (before the importer has received and paid for the goods), but he gets his cash back immediately from some house in New York to which he sells his own long sterling. This house discounts the latter on its arrival in London, and has meanwhile sold sight sterling in New York against it. Thus this house passes the burden of the advance on to the money dealer in London who has made the discount. This dealer takes the burden of the advance, unless he shifts it to some one else in London by rediscount. Plainly, then, the effect of the banker's long bill with which we are at the moment concerned is to make

London *finance* the American export to England. In § 44 we saw how the sterling letter of credit system leads to London's financing commercial shipments all over the world. We have here an example of a similar effect.

Why not call this class of banker's bills "finance bills"? Is not our finance bill presumably one which makes the foreign money market finance something for us? The answer is simply a matter of usage of the term. Usage excludes these particular bills. Other banker's long bills have the effect of making London finance some domestic undertaking of ours, while these at any rate only make her finance our export, which when it goes to her is her import as much as our export. Usage seizes upon this distinction.

The best definition of a "finance bill" then would seem to be the following: It is any bankers' long foreign bill, except one drawn to recover a fund already invested in trade bills on the same place (that is, one drawn against documentary payment bills as collateral). It is called a finance bill because it has the effect of making the foreign money market (London) finance some domestic undertaking of ours for the term of the bill. Examples are the bills considered in our §§ 83, 84, and 85.[10]

[10] In his clear, though brief, "Foreign Exchange Explained," pp. 88 and 102, Mr. Escher maintains that the term "finance bill" should be confined to the long bill drawn by the borrowing bank itself, the bill considered by us in § 85. He considers this "essentially different" from the bill drawn by a London bank's agent to enable the placement of a loan in our market. But would it not appear that the bills here distinguished by Mr. Escher as "loan" bills and "finance" bills are *formally* different but *essentially* the same. In economic or financial nature and effect they are the same. When the London bank takes the initiative in transferring loanable funds for employment in our money market, *it* is responsible for the bill used to effect the purpose. This does not make the instrument any the less a finance bill. It merely removes any responsibility or odium for it from an *American* bank.

CHAPTER XIII

SPECULATION IN EXCHANGE

§ 90. **Futures, speculation, and hedging.**—A sale of exchange for future delivery is a contract under which one of the parties agrees to deliver a stipulated amount and kind of exchange (as £10,000 of bankers' sight sterling) upon a designated future date, for a price determined upon when the contract is made, but payable on the future date when the exchange is actually delivered. The other party engages to take the exchange at the time and price named. Both purchases and sales of exchange for future delivery may be made either as speculations or as means of hedging against pre-existing speculations.

The term "speculation," in a business sense, is often taken to mean the assumption of an unusual pecuniary risk in the hope of an unusual pecuniary gain. But a broader concept is preferable. It is better to abandon the test of the unusualness of the chance taken. Defined formally, a *speculation* in a business sense is the assumption of risk involved in the making of an outlay in money (or money's worth), or the committing of oneself to make such an outlay in the future (whether the commitment be absolute or conditional), for a return in money or its worth, in any instance where the relation or proportion between the outlay and the return is uncertain. Outlay may be certain and return uncertain, or reversely, or both may be uncertain, all these combinations being common in practice.

It is apparent that many if not most business under-

takings involve speculation as it is here defined. The reader may note that nothing in the definition draws the line between speculation and gambling, for in gambling a person makes a money outlay for an uncertain money return. It is a question of definition whether we say gambling involves or is speculation (as you prefer), or whether we refuse to say it. We shall not try to settle this matter but shall be content to say that our concern is with business speculation, or one kind of it—namely speculation in exchange.

A speculation has been defined as the assumption of risk involved in a certain type of operation. It is also good English, when convenient, to call the operation itself a speculation, so that as a manner of speech one may say indifferently "the purchase of this property *involves* a speculation" or "the purchase of this property *is* a speculation."

If an operation involving a speculation is undertaken precisely for the sake of this speculation, we shall call the operation an *outright speculation*. But if the assumption of risk is only secondary or incidental to some main piece of business which would be profitable in the absence of the risk, we shall call the assumption of risk in such a case an *incidental speculation*. Both outright and incidental speculation have important bearings on the market for exchange.

A hedge—the dictionaries seem to authorize only the verb "to hedge" but let us be high-handed and use the noun—a *hedge* is a speculation of such character that when added to another prior or more important speculation the element of risk in the latter is either eliminated or reduced. A hedge and the major speculation are of a complementary character and when merged in one larger operation make the whole less risky than either element alone.

§ 91. **Operations in futures as a means of hedging.**—The

sale or the purchase of exchange for future delivery may be a hedge.

For illustration, suppose a merchant of our country has committed himself to forward a certain kind and quantity of goods to an English buyer 60 days from now, the price to be £10,000, collectable by means of the American's drawing a sight draft for this sum at the time of the shipment. Suppose the exporter's standing is such that his exchange always meets with a ready sale. He has sold merchandise for future delivery. In consequence he will have sight sterling to sell in the future. If he decides to wait until the day of shipping and drawing comes round, before disposing of this, he will have to take the rate of exchange current on that day. Should this rate turn out to be 4.87 he would receive $48,700, should it be 4.84 his takings would come to but $48,400, which is $300 less. Thus in addition to any other speculations it might embrace, the business would certainly involve a speculation on the future course of sight sterling.

To avoid, cancel out, or neutralize this speculation, in a word to make a hedge against it, it is only necessary to sell the £10,000 of sight sterling for future delivery. Suppose the engagement to sell the goods is entered into on July 1st. They are to be shipped on August 30th. The £10,000 of sight sterling may be sold on July 1st for delivery August 30th in return for payment August 30th, but at a rate agreed to July 1st. Suppose the buyer of this, the exchange for future delivery, whoever he may be and whatever his purpose may be, agrees to take it at 4.8550. His making a contract to receive it at this figure eliminates the exchange speculation from the exporter's operation.[1] This contract sets in advance the number of dollars to be realized from the goods by the exporter as 48,550. It will

[1] Assuming, of course, the solvency and ability of the purchaser of the exchange for future delivery to perform his agreement.

usually be possible for the latter to find the rate at which he can sell the exchange-future before he brings to completion his contract for the future sale of the goods, in which case there is never a moment when the operation taken as an entirety involves an exchange speculation.

The sale of the exchange for future delivery is *in isolation* an outright speculation. But combined with another transaction to which it possesses the proper complementary character, it becomes a hedge. The other transaction must also necessarily be a speculation if it stands alone. A speculation cannot be added to a certainty and produce the phenomenon of the hedge, namely, the phenomenon of the reduction of risk by the coupling on of what in isolation would itself be a risk.

One who combines two speculations to form a hedge becomes thereby so much the less a speculator. Much of the interest in the market for exchange for future delivery comes from parties that are too conservative to speculate and are interested because they want to make hedges. A, as the seller, and B, as the buyer of the future exchange, may both be hedging. These are parties that are well met. B might be an exchange dealer who had sold long sterling for which he needs to buy in sight sterling as cover on or about August 30th. His purchase of this in advance at 4.8550, removes the speculation on the sight rate from his operation.

§ **92. Going long of exchange.**—All methods of making a profit from a speculation in any marketable article—wheat, cotton, stocks, exchange—reduce to one fundamental operation, buying a thing cheaper and selling it dearer. When the speculator "goes long" he *buys first* and *sells afterward.* When he goes short he *sells first* and *buys afterward.* In the one case he profits from a rise, in the other from a fall, in the price while he is operating or speculating.

In a strict sense one goes short only in case he sells something he does not already have on hand or in stock. Either the sale must be for future delivery, or, if for immediate delivery the article or articles must be borrowed for this delivery and the short-seller will thus come to owe them to the lender, to be delivered at some future time or upon demand. Thus to go short means to go under a contract to deliver something in the future without now having it on hand, or to go under a commitment of some kind to deliver or find this something not now on hand. Such a commitment is not necessarily an express contract to deliver this thing to some person, but may be any condition of practical compulsion to find the thing. Thus a manufacturer of some product may by reason of sales of it for future delivery put himself short of the raw material from which it is made, without this signifying that he has made a contract to deliver this very substance to any person. So again the banker who has sold his long sterling bill puts himself short of sight sterling or of cables, no matter which, insomuch as he places himself under the necessity of finding this for cover at a future date.

If a man having 500 shares of AB stock should sell out 100 shares on a given date because he thought the price higher then than it would be subsequently, and should succeed later in buying back the same quantity at a lower figure and therefore at a profit, he would not have been short of AB in a technical sense. He would be like a short in that he profits by the same movement of prices that would benefit a short, but he would not be confronted with a certain danger that lurks in the position of a short. The latter can conceivably be caught in a corner, while the man who has sold from stock on hand cannot.

Dealers in bills often go short of exchange in the true technical sense, so that they place themselves under the positive necessity of procuring this article at some sub-

sequent date, hoping of course to do so cheaply and at a profit but being open to unavoidable losses in case the course of exchange should go against them. It is now our province to consider in a little more detail the methods of going long of exchange.

Pure speculation in exchange on the long side.—By a pure speculation we mean one not compounded with investment or borrowing. The only way a dealer can make a pure speculation in exchange on the long side is to buy exchange for future delivery, wait till he receives it on the designated future date, and then sell it at the market. Suppose that on March 1st dealer A makes a contract with B to take £5,000 of bankers' sight bills from the latter on April 15th at the rate of 4.8550. He has bought a future. He pays out no money and receives none on March 1st, and thus has neither made an investment nor received an advance. He has taken a chance on purpose because he regarded it as a good chance, and has thus made what we have called an *outright speculation.* If on April 15th sight sterling should happen to stand at 4.8750 in the market, he has made a good speculation. For on that day B must deliver him £5,000 at 4.8550. This will cost him $24,275. It can immediately be sold at 4.8750 for $24,375, or at a profit of $100, which is a return for nothing else than making a commitment and taking a risk. If the market rate on April 15th had turned out to be under 4.8550, our operator would have made a loss, insomuch as he is then compelled to pay more for the bills which he must buy than they would cost in the market. If the other party, B, were a speculator, he would gain in this case, as he could buy in the market and resell to A at the higher figure named in the contract. However, B may not have been a speculator, but some one engaged in hedging.

Operations on the long side involving investment or

lending.—All other methods of going long of exchange than the isolated operation of buying a future, by necessity involve either an investment in exchange or the making of a foreign loan.

(1) Let us consider first an illustration of a speculation on the long side associated with an investment in exchange. It is true this leads us into what is essentially a repetition of an illustration already given, the one of an investment in exchange, but it is worth while to look at the same thing anew and from a different standpoint. If sight sterling is very low at present and a dealer thinks it will be materially higher in 60 days, a feasible way for him to go long and speculate for the rise, is to buy some 60 days' bills and hold them till maturity (*i.e.*, invest in them). He might of course close out at some earlier time than the very end if he thought it best, and this by discounting the bills in London before their maturities. Suppose the following data are given on March 1st.

Sight sterling	4.84
London arrival discount rate	3%
60 days' bills therefore at	4.8125

And suppose the following proves true on May 3d.

Sight sterling	4.88

This gives us a very favorable case. Let us see what comes out of it. A New York dealer goes long on March 1st by purchasing £10,000 of 60 days' bills at a cost of $48,125. Allowing these to run till maturity without discounting them in London, he is enabled to sell £10,000 of sight sterling on May 3d against them as cover. At 4.88 this fetches him $48,800. His return exceeds his outlay by $675. This gain is attributable chiefly to the very fortunate speculation on the course of the sight rate. To isolate what we may regard as the speculative profit we

would need to suppose that the sight rate remained on May 3d, where it was on March 1st, that is at 4.84. In this case the return from the operation would have been $48,400 and the gain but $275. The actual gain exceeds this by $400.

It was first asserted some time back that every investment in exchange involves a speculation on the course of the rate of exchange. We now see the same fact from another angle, for we see that whenever an operator speculates on the long side by the method of purchasing 30, 60, or 90 days bills, the speculation necessarily involves an investment. The difference between an *investment involving a speculation* and a *speculation involving an investment* is simply one of degree. The question is merely which element the operator regards as the main one. Conditions might suggest investment if it were not for a very bad incidental speculation. For instance money rates might be very low in New York and high in London, but the sight rate on London might be so high now, and be associated with prospects of being so much lower later, that investment would be counter-indicated and restrained.

(2) A banker may go long of exchange by making loans to foreigners in foreign money, by placing a franc loan in Paris or a sterling loan in London. He will profit by having the value of the foreign money in terms of our money, as expressed in the exchange rates, low when he places the loan and high when it matures. It is conceivable he should place the loan not primarily because interest rates were high in the foreign capital but primarily because the speculation on the exchange rate seemed attractive, in which case we would have a speculation in foreign exchange on the long side coupled with a loan abroad as an important incident.

Usually such speculations would not cover a long period and involve the purchase of long-term foreign securities.

But if before the military collapse of Russia in the World War some one should have advised Americans with money to buy Russian government bonds on the grounds that the ruble had a very low value in dollars at the time and would probably have a much higher one some time in the future, when the bonds might be sold to advantage in Russia, this some one would be advising going long of Russian exchange. At the present writing (1919) it would appear that such advice would have been very bad.

It would be possible for a dealer to go long of some kind of exchange, sterling, for instance, by purchasing sight drafts to be remitted for the credit of the London deposit, allowing the fund so established to remain untouched for a time, and then selling sight drafts against it later. This would essentially be an example of a speculation involving a loan, because our deposits in London are virtual demand loans to London banks. But this method of speculating for a rise in the rate for sterling in New York could only be appropriate when a rather sharp rise, or considerable rise in a brief time, is expected. This is because the rate of interest received on London balances is so low that a loan at that rate is *per se* an unremunerative employment of funds.[2]

§ **93. Going short of exchange.**—There is but one way to make a pure speculation in exchange on the short side, or for the fall. This is to make a sale for future delivery as an independent and isolated operation, and wait, if not

[2] Any one having some special credit abroad against which he is entitled to draw sight exchange, may defer the sale of this for a time because of a belief the rate for it will be higher later on than now. But a speculation for the rise, of this character, is not likely to be undertaken with the intention that it shall endure very long, this because of the loss of interest entailed. If an exporter entitled to sell sight or long bills at the present moment should hold off for a few days on the theory that a rise is imminent, he would be engaging in a mild speculation on the long side.

until the day set for delivery, at least for a certain time, before buying in the exchange to be used to discharge the contract. During this period the dealer remains short without the speculation's being alloyed with any operation with a finance bill or other borrowing operation. Assuming him to remain short until the day of maturity of the contract (though he might conclude to purchase cover at an earlier date), his profit or loss will depend on the relation of the market rate of that day to the rate at which he sold for future delivery. Thus if he sold for 4.86 and buys in cover at 4.84 on the day of delivery, his profit as a speculator is evidently 2¢ a pound or $200 on a £10,000 contract. It is clear that like other shorts, he is interested in seeing a low price on that day in the future when he is to cover.

Operations on the short side by means of long bills.— We have already seen (§ 85) that if a banker sells a long sterling bill he is by this action put short of sight sterling (though sterling cables might be bought in later as a substitute). How this banker comes to enjoy a virtual loan made him from the London money market has already been explained. Heretofore we have looked upon the speculation in sight exchange on the short side which is associated with this operation as the incidental feature. But there may be occasions when the operation is undertaken not so much because the local money rates are higher than those of London as because the speculation is alluring. This gives us the case of speculation on the short side with borrowing as an incident, which contrasts with what we have called a "pure" speculation. Formerly the United States was accustomed to make exceedingly heavy exports of commodities in the autumn of each year, which produced, as a fairly regular and predictable phenomenon, a great drop in the rates for sterling in New York in that season of the year, the huge and concentrated

supplies of exporters' foreign bills being the technical explanation.[3] Extensive sales of long sterling from two to three months before this expected movement were very common. These sales were examples of what we are at the present moment describing, going short of sterling exchange to reap a profit from its fall, the means being the sale of long bills. This style of operation may be expected to remain prominent whenever and so long as our exporting shows the kind of periodicity which explains it.

§ 94. **Recovery of funds laid out for documentary payment bills.**—Merchants' long bills with documents attached deliverable against payment by the drawee, are subject to the right of prepayment by the latter under the retirement rate of discount. Bills of this character drawn on England are not discountable on their arrival either with the correspondent bank or in the open market. Each individual bill will convert into sterling cash on that particular date after arrival and acceptance, when the drawee at his option choses to prepay it or take it up. And then the amount it will yield will depend upon the retirement rate of discount of that particular day. At the latest it will be paid on its date of maturity, if the drawee has not seen fit to exercise the right of prepayment, and will then yield its face value.[4] This discussion holds, of course, on the assumption that there is no dishonor of the bill by the drawee.

The consequence of these facts is that an exact "no-profit" buying price (to which the banker might add profits at the rate he decides on according to degree of security, competition, etc.) simply cannot be computed

[3] The majority of these bills would be drawn on England and in sterling, but even those drawn in other currencies, through the influence of arbitrage (*see* Chapter XIV) contributed as effectually to the main result.

[4] Compare § 67.

for the individual documentary payment bill. If a given D. P. bill, offered on this side to-day, were destined to be prepaid on arrival, and we knew this in advance and also knew what the retirement rate of discount would be at the time, we could compute a no-profit buying price for it with the same ease and accuracy as for the discountable types of exchange, and according to the methods which apply to the latter as explained in Chapter IX. If the bill in question were destined to be prepaid 30 days after arrival, at the same or at some other retirement rate of discount, it would have a different theoretical value in dollars as a purchase to-day, and if it were to be allowed to run till maturity, still another value.

Documentary payment bills that are drawn against perishable goods, which must be procured promptly by the drawee, have, of course, an excellent chance of early prepayment, and the banker may take this into his reckoning, but speaking of the generality of these bills, the precise theoretical no-profit or basic buying rate for each individual instrument cannot be determined.

When a banker takes such a bill for *collection,* the uncertainties pertaining to it do not of course become his problem, but remain the concern of the drawer or exporter. Bankers, however, make outright purchases of these bills in large numbers, and in consequence have resorted to special methods of handling them which it is now our province to describe if only in a brief way. Since in some instances sales of the banker's own long bills, and in others sales of demand drafts for future delivery are involved, this discussion has been postponed to this point instead of having been undertaken in Chapter IX.

If the banker who buys a documentary payment bill is willing to lock up the funds paid for it, until it is in the course of events discharged abroad, and is willing to take a speculation as to the rate at which he can, after

being notified of its retirement, sell demand sterling or cables against it, he need take no special action in connection with it. But since this procedure involves both (1) a postponement of the recovery of funds and (2) an exchange speculation, it is often not altogether satisfactory. An additional speculation as to the future course of the retirement rate of discount is likewise involved, this being in fact ineradicable.

The two special plans of action which serve as partial solutions of the difficulties are (1) the sale of the banker's own long bills against the purchased documentary payment bills as collateral for the acceptance account, and (2) the sale of demand bills for future delivery according to a schedule of probable prepayments of the mass of documentary payment bills bought and held abroad. The first has the advantage of bringing about an immediate recovery of funds, while the second reduces the speculation as to the future course of sterling rates in our market.

To speak of these in a little more detail and in order, the London correspondent banker or acceptance house upon which our bank will draw its long bills, almost always require collateral security for the grant of their acceptances.[5] Documentary payment bills are freely received as such collateral. Now then, if our bank has some of these abroad it may find it an advantage to draw its own long bills in such amounts and maturities that the collections from the documentary payment bills will furnish the sterling required for the discharge of the same, meanwhile pledging the documentary payment bills as collateral to protect the acceptance account. It is necessary that the latter should be paid early enough to cover the banker's long bill drawn against them, and therefore presumably they should all have maturity dates on or before the due

[5] Compare § 40.

date of this bill. If they happen to be prepaid no harm follows except a loss of interest due to the difference between the retirement rate and the deposit allowance rate.

It is not customary for bankers to think of such of their long drafts as are drawn against previously purchased documentary payment exchange, as being "finance bills."[6] For the bills that bear this name are drawn not to recover moneys previously laid out in the purchase of sterling exchange, but to secure new funds for free employment during 60 or 90 days or more. The distinction has a technical banking validity, though in both cases London finances us. London finances our exports to England in the one instance. In the other its accommodation is for an unidentified purpose, the purpose to which the drawer of the finance bill happens to devote the funds he secures by means of it.

One of our bank's holding a quantity of documentary payment bills abroad may be able on the basis of its experience to draw up a schedule of probable prepayments to come from the whole mass of them, despite the fact it cannot predict the dates of prepayment of each individual instrument. In giving an illustration of this, Margraff[7] supposes that bills held abroad which will produce about £50,000 in total, will yield £10,000 fifteen days after arrival, £20,000 on the thirtieth day, and £20,000 more between the forty-fifth and sixtieth. On the basis of this schedule the banker may sell demand sterling for future delivery, to wit, £10,000 for the 15th day after purchase, £20,000 for the 30th day and so on. There is, to be sure, a certain degree of speculation left in this business. If prepayments should prove slower than the schedule, overdrafts might be incurred, and if they prove faster, the returns will be affected to a degree, but the major specula-

[6] Compare §§ 85 and 89.

[7] In his "International Exchange," p. 56.

tion as to the future course of sterling in this country is eliminated. The reader understands, of course, that the scheme is to have the proceeds from the documentary payment bills, as they are taken up abroad, provide for the discharge of the demand drafts promised for future delivery here.

It is not our intention to press further into this subject. Thus we pass over the technical problem, faced by the exchange banker, of figuring the exact rates which he can offer for documentary payment bills, under these plans of handling them. The basic factors that must be taken into account here are the probable net returns at home in dollars to be had from the documentary payment bills, the time of their receipt, and if this is a future time (as when exchange for future delivery is sold) the rate of interest to be charged the operation meanwhile.

Beneath appears a conspectus of the sources of supply and demand, for exchange for future delivery.

THE SUPPLY OF FUTURES COMES FROM

1. Operators who go short of exchange as an outright speculation.
2. Bankers who have invested in long foreign bills.
3. Merchants who have sold goods abroad for future delivery.

   Exporters of goods for future delivery or merchants who for any reason know in advance that they will have exchange to offer in the future, may sell it for future delivery to eliminate speculation.
4. Bankers who have purchased a line of documentary payment bills.

   These bankers may offer futures against an assumed schedule of payments and prepayments as explained just above.

THE DEMAND FOR FUTURES COMES FROM

1. Operators who engage in an outright speculation on the long side.
2. The drawers of finance bills.
3. Merchants who have purchased foreign goods for future delivery and whose arrangements for payment are such that they can reduce speculation by buying some type of exchange for delivery on a future date appropriate to their undertaking.

CHAPTER XIV

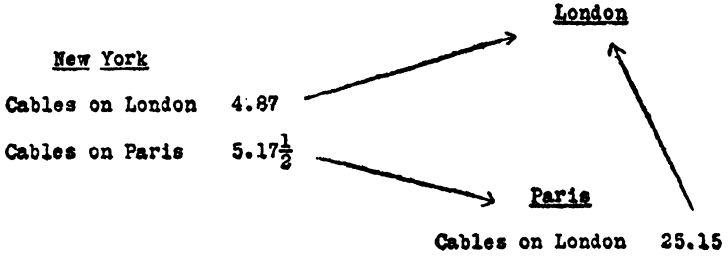
ARBITRAGE

Foreword.—ARBITRAGE OF EXCHANGE IS A VERY TECHNICAL SUBJECT AND CAN ONLY BE TREATED TECHNICALLY. A COMPETENT EXPLANATION OF IT CANNOT MERELY BE READ BUT MUST BE STUDIED.

§ 95. Arbitrage and arbitrated rates, parities, and prices. —The term "arbitrage of exchange"[1] signifies either

1. An exchange operation of a certain kind, or
2. A mere exchange reckoning or calculation of a certain kind.

A set definition of an arbitrage operation is a thing so formidable that we will do best to give a mere illustration our first attention. Suppose a New York banker has telegraphic information of the fact that cable transfers on London are now selling in Paris at the rate of 25.15 francs per pound sterling. At New York the rate for cables on London is 4.87, while that for cables on Paris is 5.17½ meaning that 5.17½ francs can be purchased for $1. Thus



[1] Also known as arbitration of exchange.

The relation between these rates makes possible the winning of a slight profit from what is known as a "three-point" arbitrage operation. Suppose that the operator is at New York and for simplicity's sake that he works with $100. By aid of his tables or of a brief computation he soon determines what to do.

1. *He first expends the $100 for a cable transfer on Paris.*
   At the rate quoted this would buy 517.50 francs of such exchange and enable him to establish almost instantaneously a credit for this amount with his Paris correspondent.
2. *He next instructs his Parisian correspondent to expend the credit in francs for a sterling cable, to be bought at Paris.*
   517.50 francs will at the rate of 25.15 purchase $20^{57}/_{100}$ pounds of cable transfer on London.
   $(517.50 \div 25.15 = 20.57)$
   This sterling is placed to the credit of our operator's account with his London correspondent.
3. *Finally he sells £20.57 of sterling cables in New York for $100.17.*
   £20.57 sold at 4.87 bring in $100.17.

The operation consists of three transactions.

1. A conversion of dollars into francs by the purchase of a cable on France (which is not the only way to make this conversion)
2. A conversion of francs into pounds by the purchase at Paris of a cable on London (which again is not the only way to effect such a conversion)
3. A conversion of pounds into dollars by a sale at New York of a cable on London (which also is not the only way to effect such a conversion)

The operator laid out $100 and got back $100.17, making a gross profit of 17¢ or about 1-6th of 1%. Out of this telegraphic charges and other incidental expenses must be paid. The gross profit would be $170 on an op-

eration with $100,000, and an operator who could make a profit at this rate would, we are given to understand, consider himself very fortunate indeed.

Arbitrage operations assume such a variety of forms that a definition, which will at once include all these operations and exclude every kind that is not arbitrage, necessarily becomes lengthy and complex. In offering the following we do not mean to suggest that the reader can gain from it an understanding of arbitrage without thorough illustration. Speaking now of arbitrage of *foreign exchange* as an *operation,* we may say this is an operation conducted by a dealer in a given country, which always involves a purchase or sale of foreign exchange for his account in another country or in other countries, and consists in an outlay of funds at home to purchase exchange on some foreign country and a return of funds to the home office either (1) from the sale of exchange on some different foreign country or (2) from the receipt from abroad of a remittance of exchange payable or salable in the home country, the operation being undertaken to make a profit from an excess of the return over the outlay which has become possible owing to the relative positions of the several exchange rates governing the transaction. The outlay and the return in an arbitrage operation take place as nearly simultaneously as possible, but the outlay may precede the return, or the return precede the outlay. The one who operates is called an "arbitrager" or an "arbitrageur."

If the operation embraces exchange transactions in two places only it is known as "two-point" arbitrage. If transactions in three places are involved, we have "three-point" arbitrage, and so forth. The example we considered a moment ago was one of three-point arbitrage. (See § 99).

Arbitrage of foreign exchange (we speak as well of ar-

bitrage of stocks and bonds) may also be defined as the taking of a fund in the currency of one country, and the conversion of it by means of a transaction in exchange into a currency of another country, and the re-conversion of it into the original or home currency by another transaction in exchange—or the conversion of it into the currency of a third or even of a fourth country and the final re-creation of it as a fund in the home currency by further transactions in exchange—with a view to having the returned fund exceed the one started, when this result is made possible by the relative positions of exchange rates. A fund is, so to say, sent out on a circular journey and reappears as a slightly larger one in its original currency. (Compare § 96 on the transfer of funds).

Arbitrage as a computation.—The preceding has referred to arbitrage as an operation. But the term also means a mere computation, the computation of what is often called a "par" or "parity." For example,

A certain stock sells in London at.....	£ 33. a share
Sight sterling in New York is at.....	4.87
The New York price of this stock, which is the equivalent of the London price for trading purposes, must be based on the rate of exchange and will be	$160.71 a share

Whether the sight or cable rate should be employed in any given computation depends on the nature of the transaction to which it relates.

The $160.71 per share is an *arbitrated price* or arbitrated par or parity. It is distinct from the actual price in New York from which it may differ at any moment. A gap between the two is in fact what leads to an arbitrage operation in the stock, while the continual succession of such operations is what tends to drive the two prices, the ar-

bitrated and the actual, together or make them coalesce.

If we speak of the London price for some article, expressed as it is in sterling, and the New York price expressed in dollars, as being equivalent or equal or at an equality or at a parity, the one rational meaning our statement can have is that the arbitrated price and the actual price in one of these cities are the same. If we say "Atchison is higher in London than in New York" this means practically that New York's arbitrated price from London is higher than New York's actual price. It is *solely* by the comparison of the arbitrated and the actual prices in our currency that our dealers can tell whether to buy the stock in New York and sell in London, or do the reverse, or do nothing.

An arbitrated price is then the price of an article in one country and in the currency of that country converted to a price in terms of the currency of another country, the conversion being effected by means of the ratio afforded by the existing exchange rate between the two countries. The exchange rate may be the sight or cable rate and may be taken from the exchange market of either one of the cities, according to circumstances. It should be understood that in times of free intercourse the two cable rates (the one in the first country on the second and the one in the second on the first) tend to rest at exactly the same value ratio between the two currencies, except where a margin between bankers' buying and selling rates for cables enters in. The use made of an arbitrated price is to compare it with the actual domestic price to tell whether a profitable trade in the article is possible. Incidental costs of effecting the trade must of course be considered.

The *mint par* or *mint par of exchange* (for definition and explanations *see* § 103 to follow), such as the figure $4.8665 between the money units of England and of the

United States, is employed in many conversions of values from one currency to another, instead of the rate of exchange, where the purpose of the conversion is merely statistical. Customs houses may also commit the error of using the mint par. The mint par has no direct bearing whatever on the practical undertakings of trade and commerce.

Not only the price of a security in a foreign country but the price of a draft or cable transfer in that country on a third country, or on our country as well, may be the subject matter of an arbitrage computation. In other words, we may have an arbitrage conversion of a foreign quotation of exchange.

To illustrate,

In Amsterdam telegraphic transfers on London are at.	12.10 florins per pound sterling.
In New York the cable rate on Amsterdam is	40.2 cents per florin.
THE NEW YORK PARITY OF A POUND THROUGH AMSTERDAM is	4.8642 dollars per pound.
While New York's actual rate for telegraphic transfers on London might be, say.....	4.8645 dollars per pound.

The "parity" of $4.8642 is derived from the two numbers preceding it. So far as mere arithmetic is concerned, the computation takes this form:

£1 = 12.10 florins.
1 florin = .402 dollars.
Therefore £1 = 12.10 × .402 or 4.8642 dollars.

The significance of the figure is this: *it shows that a pound bought through Amsterdam will cost the New York*

dealer $4.8642, and equally *that a pound sold through Amsterdam will yield a New York dealer $4.8642,* incidental charges being disregarded in both cases. Thus

NEW YORK BANKER SELLS A POUND THROUGH AMSTERDAM

He has a pound of credit in London.
His agent on order sells a cable for £1 in Amsterdam.
This yields a credit of 12.10 florins in Amsterdam.
Banker A himself sells 12.10 florins of cable on Amsterdam in New York at $.402 per florin, for..... $4.8642

Again

NEW YORK BANKER BUYS A POUND THROUGH AMSTERDAM

He buys 12.10 florins of cable on Amsterdam which at $.402 per florin cost $4.8642
His agent in Amsterdam spends the 12.10 florins there for £1 of cable on London. So the pound has cost $4.8642.

For every pair of rates (consisting of a rate in Amsterdam on London and a rate in New York on Amsterdam) there is a given parity. For a few examples:

Amsterdam on London	New York on Amsterdam	Parity
12.10	40.20	4.8642
12.10	40.25	4.8702
12.10	40.30	4.8763
12.11	40.20	4.8682
12.11	40.25	4.8743
12.11	40.30	4.8803

The arbitrager provides himself with extensive tables for ready reference. The figure known as the "parity" is, as already stated, really an arbitrated foreign price for

some kind of exchange. Its chief use is to show instantly what possibilities may exist for an arbitrage operation. If, for instance, the actual rate for a pound sterling of cable transfer at New York (say 4.8705) is higher than the parity through Amsterdam (say 4.8702), it shows that a profit can be gleaned by selling cables on London and covering by buying cables on Amsterdam and repurchasing cables on London in Amsterdam. If the actual rate in New York is below the parity, it shows that a profit can be made by buying cables on London in New York and selling cables on London in Amsterdam and selling cables on Amsterdam in New York. If the actual rate and the parity are the same, no profit is possible from an arbitrage operation. In several sections to follow, the subject of arbitrage and indirect remittance will be elaborated.

§ **96. The two methods of direct transfer of funds.**—All arbitrage manuals seem to be singularly faulty in the matter of exposition, and are practically useless as text-books. They usually employ a very confused terminology, give too few definitions, and worthless ones at that. The present chapter of this book takes the liberty of forming its own terminology where necessary.

Funds and their transfer.—Among its several meanings the word fund has that of a changing or moving stock of property which retains a given ownership or control. Expressed at greater length, a fund in this sense is a stock of money or of other forms of property for which money has been paid and which are convertible back into money, a stock which is retained in a constant ownership or control while it changes its form or location, or both. Thus, I might have a sum of actual money in New York. I might deposit it with a bank, draw a check on this deposit and pay for a banker's sight draft on London, exchange this abroad for bank credit, use this bank credit to buy

Union Pacific stock in London, ship the latter back to New York and resell it there in the stock market for a check on a local bank which I should finally deposit in the first mentioned bank. There has been a stock of property [2] throughout these dealings that has been mine and has been under my control. This fund, as it is convenient to call it, has been embodied, so to say, first in actual money of the United States, second in bank credit in New York, third in a sterling bill of exchange, fourth in a deposit credit in a London bank, fifth in a certain number of shares of Union Pacific stock, sixth in a check on some New York bank, seventh and finally in a deposit credit with my own New York bank. It has changed its form a number of times and also has changed its place.[3]

A transfer of funds from one country to another may be effected

(1) by an export of merchandise or securities,
(2) by an export of actual money [4] or of gold bullion, or
(3) by means of a pure operation in exchange.

Hereafter in this chapter we have to do with transfers effected in the latter manner alone. A transfer of funds

[2] Property, not in the popular sense of land, buildings, or tangible goods, but in the sense which includes rights of action, credits, bank deposits, etc., or strictly rights against persons as well as in things.

[3] The fund is not represented to be a physical continuum. It is merely something we choose to regard as a persisting identity for convenience of thought and expression, just as it suits us in some connections to think of a chapter of a lodge or fraternity as the same chapter now as at the time of its foundation although all the original members may now be dead and gone.

[4] If the exported money is other than gold and is sent or carried from a gold standard country, it will ultimately return home.

between two places, as New York and London, is *direct* if it involves exchange operations only in New York and London. It is *indirect* if it involves such operations in a third city, as Paris, or in a number of outside cities, as Paris and Amsterdam both. Direct and indirect have then a geographical significance in this connection, this being a matter of arbitrary definition.

A direct transfer of a fund may be accomplished in two ways. (1) The party who transfers may remit exchange for his account to his agent or partner abroad. (2) He may as an alternative instruct the agent to draw upon him and sell the exchange so drawn in the foreign place to which the fund is to be transferred. In other words, the exporter of a fund may produce the required result either by remitting exchange or by submitting to draft. Either method brings about, first, a disappearance of a fund at home (in the shape of money or credit surrendered), and second, its appearance abroad in the changed form of foreign money or credit.

Choice between the two methods of direct transfer.— Where each of the two centers between which a direct transfer of a fund is to take place possesses a free and active market in exchange on the other, both methods of transfer are feasible. But the choice between them is not always a matter of indifference, because now one and now the other may have the advantage.

We take the liberty even in this year of writing (1919) to draw our next illustration from dealings between Berlin and Paris. Suppose a banker in Berlin has occasion to make a telegraphic transfer of a fund of 100,000 marks from his city to Paris. Should he buy a telegraphic transfer (or what we call a "cable" when it crosses the ocean) on Paris, or should he send a telegram to his agent in Paris to sell exchange for marks drawn on him? Assume the following rates:

In Berlin telegraphic transfers on Paris, 81.30 marks per 100 francs

In Paris telegraphic transfers on Berlin, 123.10 francs per 100 marks

As for Paris rate for sight drafts on Berlin, *see* footnote.[5]

Try the two methods.

The Purchase of a T. T. on Paris in Berlin

100,000 marks will buy at the rate of 81.30, and produce in Paris ..... 123,001 francs
(*i.e.*, 100,000 ÷ 81.30 = 123,001)

The Sale of a T. T. on Berlin by Paris Agent

100,000 marks sold at rate of 123.10 fetch in Paris 123,100 francs
(*i.e.*, 100,000 × 123.10 = 123,100)

With the data here given the second method is preferable as yielding 99 francs more than the first. The difference between the two is exaggerated compared with what could be expected in practice in times of free intercourse. What we have above is a mere illustration. The data might be so changed as to make the first the more productive method, or again to make the two equivalent. They would be equivalent, for instance, if Berlin on Paris were at 81.30 and Paris on Berlin at 123, or, again, if the pair of rates were 81.16 and 123.20. The members of a pair of rates in such a position are said to be "at a parity" with each other. It is an economic law that the two members of such a pair tend to maintain positions of parity under all conditions of commerce day in and day

[5] The transfer of the fund to Paris is equally quick whether Paris sells telegraphic transfers or sight drafts on Berlin, but if the latter are sold the Berlin banker has a day or two before being required to disburse marks and receives slightly less francs at Paris owing to the lower selling price of sight drafts. For the sake of simplicity we omit to consider the case separately.

out. It must be held in mind there are an indefinite number of such positions of parity much as there are an indefinite number of positions of a see-saw across a log in which the board may remain unbent or unbroken.[6]

§ 97. **Two-point arbitrage.**—Two-point arbitrage is arbitrage which embraces transactions in exchange at two geographical points, and two only. Otherwise described, it is an operation in which a fund is sent from a first place to a second and then directly back to the first, both transfers being accomplished by dealings in exchange. It is arbitrage, as distinguished from a mere transfer of funds, in that it involves a return of the fund to the point of origin, or a swing round the circle.

In arbitrage an operator may deal in telegraphic transfers, sight drafts, long bills,[7] and exchange for future delivery, but our attention will be directed at present chiefly to arbitrage in telegraphic transfers. Setting aside any classification based on the different terms of life of the exchange employed, there are two, and only two, cases of the two-point arbitrage operation. These are the two fundamental cases. They would be found if there were exchange of only one term of life known throughout the world. It is understood there must be a dealer in exchange

[6] In the case where we compare the rate in a first city upon a second, with the rate in the second on the first, if we have one rate given us as 123 francs in Paris for 100 marks of Berlin telegraphic transfers, we calculate the parity point of the other rate simply by dividing the 123 into 100. Thus $100 \div 123 = .8130$. If 123 francs equal 100 marks, then *at the same ratio* 81.30 marks equal 100 francs. This holds good if both rates are quoted "directly" or both are quoted "indirectly" (compare § 22). But if one is quoted "directly" and the other "indirectly," the rates are at parity when they are exactly the same. Thus when sterling is quoted in Paris at 25.15, exchange on Paris in London (quoted "indirectly") is at parity when at the same figure, 25.15.

[7] That is, it is possible for the purchase of long bills to become a part of an arbitrage operation.

at each of the two geographical points, and these dealers must coöperate, whether in a relation of partnership or of agency. Described as briefly as possible, the two cases of the operation are:

I. Each dealer draws on the other.
II. Each dealer buys exchange to remit to the other.

Case I is that of mutual submission to draft, or that in which each dealer sells exchange on the other. There are two *reciprocal sales.* Case II is that of an interchange of remittances, or that in which each dealer buys exchange in his city to be sent to the other. There are two *reciprocal purchases.* Which of the two cases transpires or materializes at any time depends upon the direction in which the rates of exchange in the two cities (each on the other) break from parity.

If required to show that these two cases exhaust the possibilities of two-point arbitrage, we should proceed as follows (it being understood that in looking for fundamental cases we agree to ignore different kinds of exchange classified according to term of life, and to treat of arbitrage that can be accomplished in one kind alone, as say in telegraphic transfers). The arbitrager at each point can only buy or sell exchange on the other point.[8] The arbitrage must consist in a pair of transactions in exchange, one undertaken by each dealer. There are four possible transactions from which this pair can be selected. These are

1. Dealer A sells exchange drawn on dealer B
2. Dealer A buys exchange in the market to remit to dealer B
3. Dealer B sells exchange drawn on dealer A

[8] If dealings in exchange on a third point are introduced the case is no longer one of two-point arbitrage.

4. Dealer B buys exchange in the market to remit to dealer A

From these four separate transactions, four pairs can be formed, namely,

1. A sells and B sells
2. A sells and B buys
3. A buys and B sells
4. A buys and B buys

Or, there are three pairs if we do not distinguish between the two dealers, namely:

1. Both sell (No. 1 above)
2. One sells and the other buys (Nos. 2 and 3 above)
3. Both buy (No. 4 above)

In the case where one sells and the other buys (No. 2 just above) there can be no arbitrage, for the result can only be a pair of transfers of funds or credits, both in the same direction, or a double transfer of funds. To illustrate: if A sells and B buys exchange, A's transaction will put A in funds at B's expense, and B's transaction will also put A in funds at B's expense. A draws on B and sells the draft, and B buys exchange to remit to A! This is clearly not arbitrage (*cf.* definitions, page 400). In truth, such a pair of transactions has no reason for being. As the saying goes, it does not make good sense. If it is desired to transfer a fund from B to A, to pay a debt, or for some other purpose, it would naturally be effected by A's drawing or by B's remitting, according to which method was best (*see* § 96) but not by a mixture of the two.

In the cases (a) where each arbitrager draws on the other, and where consequently each *sells* exchange in his own city, and (b) where each remits to the other and consequently each *buys* exchange in his own city, there are two opposite or reciprocal transfers of funds. There is

no motive for these operations except to reap an incidental profit made available by the relative position of the rates of exchange. Each of them is an arbitrage, and they constitute the only two that are possible.

It was stated that whether (a) or (b) above is to be adopted depends on the direction of the departure or break of the rates of exchange from the position of parity. Curiously, a pair of rates can break from parity in only two ways: (1) both may become too high, or (2) both may become too low, each with reference to the other. This beyond doubt needs explanation.

A position of parity, it must be kept in mind, *does not mean a position at the mint par.* The mint par has no immediate bearing on the present problem. To be in a position of parity the two exchange rates must simply show the same value-ratio between the two national currency units.

Introducing Paris and Berlin with their francs and marks into an illustration once again, assume the following rates for telegraphic transfers:

A

RATES OF EXCHANGE

In Paris	*In Berlin*
123 francs per 100 marks	81.30 marks per 100 francs

These rates are in a position of parity, for the Paris rate and the Berlin rate show the same value-ratio between francs and marks. Thus,

Value-Ratio expressed in francs per mark

According to Paris quotation..... 1.23 francs = 1 mark

According to Berlin quotation

81.30 marks = 100 francs

1 mark = $\frac{1}{81.3}$ of 100 francs

= 1.23 francs, or.... 1.23 francs = 1 mark

At these rates no profit is possible from arbitrage.

Next assume the following:

B

RATES OF EXCHANGE

In Paris	*In Berlin*
123 francs per 100 marks	81.40 marks per 100 francs

The rates are no longer in a position of parity, this because they show different value-ratios. Thus:

Value-Ratio expressed in francs per mark

According to Paris quotation..... 1.23 francs = 1 mark
According to Berlin quotation
81.40 marks = 100 francs
1 mark = $\frac{1}{81.4}$ of 100 francs
= 1.2285 francs, or 1.2285 francs = 1 mark

Value-Ratio expressed in marks per franc

According to Paris quotation
123 francs = 100 marks
1 franc = $\frac{100}{123}$ marks
= .813 marks, or..... .813 marks = 1 franc

According to Berlin quotation..... .814 marks = 1 franc

Under this misadjustment, francs have a higher value in the Berlin ratio than in the Paris ratio. Thus:

According to Berlin ..... 1 franc = .814 marks
According to Paris ..... 1 franc = .813 marks

But marks have a higher value in the Paris ratio than in the Berlin ratio; Thus:

According to Paris ..... 1 mark = 1.23 francs
According to Berlin ..... 1 mark = 1.2285 francs

Francs are above parity in Berlin [9] and marks are above parity in Paris. Under the circumstances, which of the

[9] Signifying only that francs are valued more highly in Berlin than in the Paris ratio.

two possible two-point arbitrage operations are the dealers to select? Obviously that of reciprocal sales of exchange. Each should sell a telegraphic transfer on the other, the Parisian selling marks in Paris where they are higher, and the Berliner selling francs in Berlin where francs are higher.

Suppose the Parisian acts as principal. He sells a telegraphic transfer for perhaps 100,000 marks. The Berliner then should sell a telegraphic transfer for a sufficient number of francs to bring in 100,000 marks. Below is an account of the operation.

Transactions

100,000 marks sold in Paris at 123, fetch....	123,000 francs
122,850 francs sold in Berlin at 81.40, fetch..	100,000 marks
$(122{,}850 \times 81.4 = 100{,}000)$[10]	

Profit

AT BERLIN

Received from sale of telegraphic transfer drawn on Paris	100,000 marks
Disbursed to pay telegraphic transfer drawn in Paris	100,000 marks
Profit	none.

AT PARIS

Received from sale of telegraphic transfer drawn on Berlin	123,000 francs
Disbursed to pay telegraphic transfer drawn in Berlin	122,850 francs
Profit	150 francs

Now we assume the third position of the two rates of exchange.

[10] Exactly, $122{,}850 \times 81.4 = 99{,}999.90$ marks.

C

RATES OF EXCHANGE

In Paris	*In Berlin*
123 francs per 100 marks	81.20 marks per 100 francs

These rates also deviate from parity. Thus:

Value-Ratio expressed in francs per mark

According to Paris quotation.... 1.23 francs = 1 mark

According to Berlin quotation

81.20 marks = 100 francs

1 franc = $^{100}/_{123}$ marks

= 1.23153 fcs., or 1.23153 francs = 1 mark

Value-Ratio expressed in marks per franc

According to Paris quotation

123 francs = 100 marks

1 franc = $^{100}/_{123}$ marks

= .813 marks, or .... .813 marks = 1 franc

According to Berlin quotation..... .812 marks = 1 franc

Under this misadjustment the foreign unit is too low in each of the two cities as compared with its position in the other. Francs have a lower value in the Berlin than in the Paris ratio. Thus:

According to Berlin ..... 1 franc = .812 marks
According to Paris ..... 1 franc = .813 marks

But marks have a lower value in the Paris ratio than in the Berlin ratio. Thus:

According to Paris ..... 1 mark = 1.23 francs
According to Berlin ..... 1 mark = 1.23153 francs

Consequently the indicated operation is that of reciprocal purchase and remittance, an account of which follows:

Transaction

100,000 marks bought at Paris at 123, cost...	123,000 francs
123,153 francs bought at Berlin at 81.20, cost. (123,153 × .812 = 100,000)	100,000 marks

Profit

AT BERLIN

Received, remitted from Paris on telegraphic order	100,000 marks
Disbursed, for telegraphic transfer to Paris	100,000 marks
Profit	none.

AT PARIS

Received, remitted from Berlin on telegraphic order	123,153 francs
Disbursed, for telegraphic transfer on Berlin	123,000 francs
Profit	153 francs

To summarize: there are two directions only in which a pair of exchange rates may diverge or break from parity, and there are two fundamental cases or classes of the two-point arbitrage operation, and two only. The very taking of the arbitrage profit which a break from parity makes possible tends to restore the parity. Also the constant selection by dealers of the better of the two methods of *transferring funds* between any two exchange centers exerts exactly the same influence upon the mutual rates. Since such transfers are always being effected, the choice between methods has a very powerful tendency to keep rates in the position of parity,[11] and this effect re-

[11] To determine that two mutual rates must stand at parity does not in the least mean to determine the position of the pair of rates. There is an indefinite number of different positions of parity for a pair of rates just as there is an indefinite number of positions of the see-saw obtainable without bending or breaking the board.

duces greatly the opportunity for profitable two-point arbitrage transactions. The continual choosing of the best means of transferring funds has the effect in great degree of forestalling arbitrage.

§ **98. Methods of indirect transfer of funds.**—An *indirect* transfer of funds by means of exchange is one which involves an exchange transaction in another city, or a transaction in exchange on another city, than the two between which the fund is transferred. The transfer is indirect in a geographical sense, in the sense that the migrating fund pursues a circuitous course geographically. For example, a fund may be sent from New York to London through Paris. The arbitrage operation considered at the opening of this chapter involved as one of its parts this exact indirect transfer. (Any three-point arbitrage will contain as a component some such indirect transfer.)

Telegraphic transfers alone being employed, there are just four distinct methods of transferring a fund from a first center to a second through a third. There are, therefore, what we would call the four "fundamental cases" of the operation. If a New York banker is to transfer a fund to London through Paris, the four cases are:

1. The New York banker buys a cable on Paris and directs his Parisian correspondent to buy a telegraphic transfer on London.

(Net result: Banker's dollars disappear in New York and pounds emerge in London.)

2. The New York banker buys a cable on Paris, but directs his London correspondent to sell a telegraphic transfer on Paris against this as cover.

(Net result: the same as before.)

3. The New York banker directs his Parisian correspondent to sell a cable on New York, and employ proceeds of this sale to buy a telegraphic transfer on London.

(Net result: the same as before.)

4. As in 3, Paris draws, but against the franc credit thus created, London sells a telegraphic transfer on Paris.

(Net result: the same as before.)

More briefly, the four operations are:

1. New York buys francs: Paris buys pounds sterling.
2. New York buys francs: London sells francs.
3. Paris sells dollars: Paris buys pounds sterling.
4. Paris sells dollars: London sells francs.

The total result in all cases is a transfer of a fund or credit from New York to London. The Paris correspondent is neither "in" nor "out" funds as a consequence of this operation.

The choice among the four possible methods depends upon the positions of the rates of exchange that govern the individual transactions which may serve as components to make up the whole transfer. It would lengthen our discussion inordinately to work out a set of practical illustrations in connection with this problem.

The four methods are the theoretical four fundamental cases. In practice all four would be developed only under conditions where each of the three cities had an active market in bills and telegraphic transfer on each of the other two. The same four are possible with sight drafts employed throughout, instead of telegraphic transfers. But where these instruments are used, there must, in most instances, be either a greater speculation on the position of certain rates, owing to the lapse of time during which a bill is in the mail, or there must be contracts for the forward or future sale or purchase of sight exchange (*cf.* § 100 herein).

If a bill (or actual negotiable instrument) is the form of exchange employed in the indirect transfer, a question arises as to whether there is not a fifth case, or a case

distinct from the four already set forth. Suppose the banker buys a check on Paris and mails it to London, where he sells it for sterling, it being willingly taken in London as good exchange on Paris. Clearly there has been a transfer of a fund from New York to London, but has this transfer been direct or indirect, and, if the latter, is it a fifth case? The answer, in our view, is that the transfer is indirect (compare the definition at the beginning of this section), but that it is a disguised form of the second case, namely, the one in which New York buys francs and London sells francs.[12]

§ **99. Three-point and more complex arbitrage.**—Three-point arbitrage, or arbitrage embracing transactions in exchange in or on three geographical points, may be analyzed into the two components of (1) a direct transfer of a fund from the point where the operator stands to another point, and (2) an indirect transfer thence through a third point back to the point of origin. We have now reached the puzzle department of foreign exchange. There are sixteen theoretically distinct ways of performing a three-point arbitrage operation with one kind of exchange (as telegraphic transfer) used throughout, that is, there are what we would call sixteen fundamental cases of the operation. Six different rates of exchange come under consideration in the planning of such an operation (un-

[12] In Tate's "Modern Cambist," 24th edition, London, 1908, p. 275, such operations are mentioned as the purchase by a London dealer of a long bill drawn in London on Amsterdam, and the resale of this bill in Paris, instead of its discount in Amsterdam. We should be compelled to define this as indirect transfer, case 2.

One part of an indirect transfer may consist of a gold shipment. For example, London may transfer a fund to New York by an operation in exchange, and have an agent in the latter city convert it into gold to be shipped to Buenos Aires. This actual operation has been mentioned a number of times in past years in our financial journals.

less some of these rates are omitted for lack of being the expression of real or active markets in exchange). Each of the three cities may have a rate on each of the other two, there being thus two rates in each city and six in all.

Let us first search out the sixteen cases. As shown in § 98, there are four ways of transferring a fund or credit from one city to a second through a third; and, as shown in § 96, there are two ways of making what we have called a direct transfer. Thus New York can transfer a fund to London through Paris in four ways. It can then retransfer directly from London to New York in two ways. Each of the latter two can be combined with each of the preceding four. This makes eight distinct methods whereby New York can send a fund through Paris to London and thence to New York again. There are also eight other distinct methods whereby New York can send a fund through London to Paris and thence to New York. This makes a total of sixteen combinations of transactions in exchange.

The following table sets them forth in detail.

THE 16 ARBITRAGE OPERATIONS WHICH NEW YORK CAN EFFECT THROUGH LONDON AND PARIS, EMPLOYING A SINGLE KIND OF EXCHANGE THROUGHOUT, AS CABLES

First group of 8, involving an indirect transfer to London.

(1)	N. Y. remits to Paris:	Paris remits to London:	London remits to N. Y.
(2)		(Same) :	N. Y. draws on London.
(3)	N. Y. remits to Paris:	London draws on Paris:	London remits to N. Y.
(4)		(Same) :	N. Y. draws on London.
(5)	Paris draws on N. Y.:	Paris remits to London:	London remits to N. Y.
(6)		(Same) :	N. Y. draws on London.
(7)	Paris draws on N. Y.:	London draws on Paris:	London remits to N. Y.
(8)		(Same) :	N. Y. draws on London.

Second group of 8, involving an indirect transfer to Paris.

(1)	N. Y. remits to London:	London remits to Paris:	Paris remits to N. Y.
(2)		(Same) :	N. Y. draws on Paris.
(3)	N. Y. remits to London:	Paris draws on London:	Paris remits to N. Y.
(4)		(Same) :	N. Y. draws on Paris.

(5)	London draws on N. Y.:	London remits to Paris:	Paris remits to N. Y.
(6)	(Same)	:	N. Y. draws on Paris.
(7)	London draws on N. Y.:	Paris draws on London:	Paris remits to N. Y.
(8)	(Same)	:	N. Y. draws on Paris.

Among these cases there are no duplicates. Likewise, there are no possible cases not included in the sixteen. The arbitrage may be engineered from Paris or London as well as from New York, but there are not three times sixteen cases.

The example of three-point arbitrage placed at the head of the present chapter comes under method 2 of group 1 in the above table. To give additional examples, let us first take an illustration of method 5 of group 1: Let the arbitrager operate with $10,000. (1) The first step is taken by New York's directing Paris to sell $10,000 of telegraphic transfer upon New York. Assuming the rate to be 520 (that is, 520 francs for each $100 of cables) the result is a fund of 52,000 in Paris. (2) For the second step, New York directs Paris to purchase a cable on London, the rate for the latter being, say, 25.20 francs per pound. As a consequence, Paris obtains £2,063.05, approximately, of sterling cables (*i.e.*, 52,000÷25.20). London is next directed to spend this £2,063.05 for a cable transfer on New York at the existing rate, which we shall suppose to be quoted after the London fashion, 49¼d. per dollar.

£2,063.05 = (at 240d. per £) 495,240d.
495,240d. will buy $10,055.60 cables at 49¼d. per dollar.

For an outlay of $10,000 the New York operator receives back $10,055.60, and thus obtains a gross profit of $55.60.

For another example, take method 4 of group 2 and operate with $10,000 as above. (1) New York buys $10,000 worth of cables on London at say 4.85, obtaining £2,061.85. (2) Paris is then directed to sell £2,061.85 of cables on London at the existing Parisian rate for this

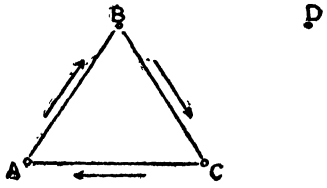
exchange, say 25.25. This yields a proceeds in francs of 52,061.70. (3) New York sells a cable for 52,061.70 francs at, say, 5.17½. This signifies that New York obtains $1 for every 5.17½ francs of this cable transfer, or $10,060.20 for the whole. The gross profit then in this instance is $60.20.

The rates assumed in the foregoing examples were chosen arbitrarily, and are not designated to show anything as to the actual percentage of profits ordinarily procurable in arbitrage under competition. If the six rates in the three cities implicated in a three-point arbitrage are in perfect adjustment—that is, in that adjustment which arbitrage itself tends to produce—none of the sixteen operations could be conducted at a profit. Misadjustments, or departure from parity, will make some operations show a profit, while others, if undertaken, would show a loss.

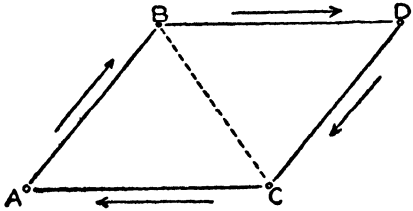
In the case of arbitrage with bills (whether sight or long) as contrasted with cables, there will be a more appreciable lapse of time between outlay and return (though a discountable long bill is not so much slower, as a remittance, than a sight draft). Assuming sight bills to be used throughout, the length of time required for the arbitrage operation differs very greatly, according to which of the sixteen theoretical cases we suppose to be chosen.[13]

Four-point arbitrage.—In three-point arbitrage a fund or credit travels around a triangle, making a journey in one direction between each two of the three cities. Thus:

[13] If the purchase in New York of a sight bill on Paris, its remittance to *London* for sale there, and the drawing of a sight bill on London against this as cover, ought to be counted as one of the theoretical cases of three-point arbitrage, it might be argued that there are more than sixteen cases with sight bills. But again, we might assimilate this with the case (1) New York remits to Paris; (2) London draws on Paris; (3) New York draws on London.



Now it is always possible that rates in or on the fourth city, D, should reach such an adjustment that the transfer from B to C might better take place through D. This new indirect transfer, which it might become profitable to engraft upon the three-point arbitrage, is in and of itself as simple as the operation discussed in § 98, but it converts the three-point into the practically more complex four-point arbitrage, represented in this manner.



Four-point arbitrage presents no new questions of principle. There are 192 fundamental cases (or combinations) obtainable with telegraphic transfers alone employed throughout. In practice, complex forms of arbitrage are overweighted with expense, and probably are comparatively rare. The continual flow of arbitrages of a simpler character tends to forestall the more complex. For illustration, three-point arbitrage involving B, C, and D, and three-point arbitrage involving A, B, and C, etc., tend to forestall any four-point undertaking. Compare the tendency to choose the cheapest method of a mere transfer of funds to forestall even the simpler arbitrage operations.

Arbitrage distinguished from other exchange operations involving simultaneous outlay and return.—The purchase of long bills on a given country and the simultaneous sale of sight drafts against these upon the same country is a transaction which in some respects resembles arbitrage, but which is not arbitrage. In this transaction there are present the purchase of one kind and the sale of another kind of exchange as parts of a larger single operation for a profit. But, if an operation is to constitute what is known as arbitrage, the different kinds of exchange dealt in must be different in *nationality*, if we may so express it. Two pieces of exchange differ in nationality, either if they are drawn *upon* different countries, or if they are drawn *in* different countries. A New York bill drawn on Paris has a different nationality for the purposes of our definition, from a New York bill drawn on London. Also, a Paris draft on London has a different nationality for the purposes of our definition from a New York draft on London. Arbitrage as an exchange operation, distinguished from all others, is one which involves the sale and purchase, as nearly simultaneously as possible, of pieces of exchange of different nationalities, and which involves a return of the fund employed to the point in which the original outlay was made.

§ 100. **Arbitrage, speculation, and futures.**—We can easily conceive of an arbitrage in which there is not the smallest element of speculation, and doubtless operations of this character are carried out in great number. Thus, if banker X whips a fund around the triangle formed by New York, Paris, and London, by making a purchase in New York of cables on Paris, and making a purchase in Paris of telegraphic transfers on London, and making a sale in New York of sterling cables, it is entirely possible that he should have all the transactions constituting the arbitrage definitely arranged by cable before giving any orders to for-

eign agents, or taking any steps of his own. We might call such an operation (one free from the slightest admixture of speculation) a "pure" arbitrage.

The following wholly supposititious example shows an arbitrage which by way of contrast would involve a considerable degree of speculation. Thus, suppose X acting on the basis of the sight rates quoted in the three places at the moment of his decision, buys sight bills on Paris and mails them with instructions that their yield in francs be spent upon arrival for sight sterling bills, these to be forwarded to London for X's credit. After waiting two or three days to avoid overdraft, X completes the arbitrage by making a sale in New York of demand drafts on London. Taking the case exactly as stated, and not concerning ourselves with the question whether a dealer would actually engage in such an operation, the first thing to strike our attention is that the rate in Paris for demand sterling might easily shift quite a distance during the five or six days required for the transit of the franc checks from New York to Paris. Also, the rate for demand sterling in New York has opportunity to move before the sale takes place in this city of the demand drafts on London. Thus, our assumed arbitrager would be taking two risks of exchange or two speculations. In view of the slightness of the profits usually available in arbitrage, the element of speculation would be extremely prominent in this example.

It is evident that here, as in cases of exchange investment and borrowing, the speculation may be eliminated if appropriate transactions in futures can be arranged. At the present moment the arbitrager of our example, located at New York, plans to buy the checks on Paris, and then six days hence to buy demand sterling at Paris, and finally to sell demand sterling at New York two days hence. If he can make the rates for these transactions determinate in advance, by finding a seller of futures in Paris and a

buyer of futures in New York, and can fix these rates at satisfactory figures or in an appropriate relation, it is clear he can carry through the arbitrage for a profit and without speculation. In other words, a suitable arrangement of transactions in exchange for future delivery may in whole or in part constitute a pure arbitrage, or there is such a thing as *arbitrage in futures*. There is nothing especially difficult in principle about such operations. In principle they are alike, but naturally a large number of combinations are possible and much ingenuity may be exercised in finding them out.

Telegraphic transfers are the ideal material with which the arbitrager may work. But even when dealing with these he may undertake certain minor and incidental speculations. To him, with his special information, these speculations may well appear safe and wise. Nevertheless, if *any* chances are taken, we must say there is speculation. To illustrate, suppose that at the present moment information by cable shows that the rate in Paris for sterling telegraphic transfers stands at a position of perfect parity with the rate for the same kind of exchange in New York. No arbitrage is possible. But suppose that while our New York banker is feeling practically certain that sterling cables are going to fall during the remainder of the day, he receives a cablegram saying that there is a decided tendency for sterling telegraphic transfers to rise at Paris. This suggests (1) a sale of sterling telegraphic transfers at Paris, (2) a purchase of the same at New York, and (3) a sale at New York of cables on Paris. Without attempting to arrange perfectly definite contracts of sales and purchases in advance, our banker acts promptly on the strength of his prognostications and cables instructions to Paris to sell such and such an amount of sterling telegraphic transfers. This is an act of speculation. It devolves upon himself to complete the operation by adding

the two transactions at New York, namely, a sale of cables on Paris and a purchase of cables on London. If, before concluding these, he waits through a part of the day, in the hope of improving his rate position in the arbitration, he commits two more acts of speculation. But presumably he knows what he is doing and will come out well. There is reason to believe this extremely prompt form of arbitrage, arbitrage by anticipation, so to say, is quite the regular thing. The arbitrager by anticipation is likely to get the business away from the one who acts with less speed. His is indeed a remarkable line of money-making. Incidentally, we must not think of *him* as some clever individual working in and out among the great banks. *He* is, in fact, or tends even more to become, one of the great institutions with its tremendous volume of regular business, its extensive information-gathering machine, its many foreign connections, and its long purse.

§ **101. Arbitrage in stocks.**—Many issues of bonds and stocks have an international market. Dealers are continually comparing the prices of such securities in different countries to discover opportunities to buy cheap and sell dear. As between any two countries, we cannot tell in which the price for a given security is the higher, without resort to the value-ratio between the two national currencies as shown in the current exchange rate, or one of the current exchange rates, between the countries. If a certain stock sells for 80 *soldas* in Urallo and for 973 *livos* in the Empire of Ramko, in which country is it dearer? As already indicated (page 401), any method of obtaining the answer reduces itself to a comparison of the arbitrated with the actual price in one of the countries. If these are the same, or at parity, nothing can be done; but if they differ, a purchase in the one country and a sale in the other become profitable. These two transactions will be made as nearly simultaneous as conditions permit. To-

gether they constitute what is known as an *arbitrage in stocks.*

For an example, suppose the following data lie before a New York operator.

(1) AB common stands in New York at..... $105⅝
(2) Sight sterling in New York..... 4.8740
(3) AB common is quoted in London, for delivery six days hence, at..... $108¾

The London quotation is not a mistake, though the reader probably expected *pounds* instead of *dollars.* The real price at which a share of any kind of stock changes hands in London is certainly a number of pounds sterling, but it is an arbitrary custom in that city to quote the price of leading American securities in American dollars, counting $5 the equivalent of £1. If the real price is £25, the Londoner in his humorous way quotes it as $125, and London knows that if another stock is quoted at $150, what it can be sold for is £30.[14]

London's fictitious dollar prices for our securities interest the arbitrager only as indexes of the real prices.

AB common at $108¾
means AB common at (108¾ ÷ 5)..... £ 21¾

New York's arbitrated London price (or the London price is sterling converted or translated into dollars) becomes $106. This because $21¾ \times 4.8740 = 106$.[15] This exceeds New York's actual price of $105⅝ by ⅜ of a point. Therefore, the indicated arbitrage is a purchase in New York for sale in London. Each share will cost $105⅝ and

[14] Ours are not the only securities quoted in London in terms of the money of the country where they are issued and made payable. The original design of the custom was, no doubt, to facilitate a rough and ready comparison of the price in London with the price in the United States itself.

[15] Plus the decimal .0095.

will yield, through such foreign sale, $106. From the gross profit the incidental expenses must be paid. This example is a mere illustration, for a profit of ⅜ of a point exceeds anything obtainable in ordinary practice.

The arbitrager buys the stock in New York for 105⅝ a share, ships the certificates to London immediately upon procuring them, and draws a sight draft on the London buyer for an amount equal to £21¾ times the number of shares shipped; this because the Londoner has agreed to take the stock at this price on the day when the steamer will arrive. To this draft the stock will be attached for delivery against payment of the instrument. It serves, of course, as collateral security. £21¾ of sight draft sold at 4.8740, the current rate of exchange for this type of bill, yields $106.00+.

CHAPTER XV

COINAGE LAWS AND EXCHANGE RATES

§ **102. The several monetary standards.**—In the next five chapters it is the design to set forth so much of the principles of money as seem important for a thorough understanding of the subject of specie shipments. To begin with we must distinguish the several monetary standards known to the world. The list comprises

1. The gold standard
2. The gold-exchange standard
3. The silver standard
4. The bimetallic standard
5. The "fiat" or irredeemable paper standard

Among the several kinds of money found in any modern country, one serves as a money of ultimate redemption, in the sense that other forms are redeemable or convertible into it by government agencies at fixed ratios, while this one is not in this manner redeemable in anything, although each unit is, if it is a coined metal money, practically convertible into an almost invariable quantity of a valuable bullion by the method of melting down coin. This money of ultimate redemption constitutes what is known as the "standard money." We speak of a country as *having* or *being upon* a certain standard, as the "gold" standard or the "bimetallic standard." Here we use the word standard in the sense of a monetary system which is defined and classified in accordance with the character of the standard money employed in it. To be upon the gold or silver

standard means to have a gold or a silver money of ultimate redemption, though this does not *completely* define the condition of being on these standards. To be on the bimetallic standard means to have both gold and silver standard moneys conjointly. There is no country which has this as a working system to-day. To be upon the gold-exchange standard is to have a system under which the local currency is inter-convertible, at some officially established and nearly invariable rate, with exchange (*i.e.* bills and drafts) on a foreign country that has the gold standard. If the system is actually maintained, the gold money of the foreign country serves as the real money of ultimate redemption, though redemption in it takes place in an indirect manner only. The irredeemable paper standard is a system under which the money of ultimate redemption is paper which is itself redeemable in nothing. How this kind of money, which has been and is very common in the world, comes to have and keep a purchasing power over services and goods, real wooden and iron commodities, has always been more or less of a mystery to the normal mind, but this seems to be only because the normal mind's conception of money possesses to-day about that degree of error and distortion which was shown say in the Ptolemaic theory of the solar system. If this offends the reader, let us not debate it, since in any case nearly all our energy henceforth will be spent in explaining the operation of the exchanges under the conditions of the gold standard.[1]

[1] The exchange rates between gold and silver countries, or between gold and inconvertible paper countries, or between silver and inconvertible paper countries, or finally between one inconvertible paper country and another, are subject in part to different principles from those which apply to the exchanges between any two gold standard countries. The exchanges between two silver standard countries would be subject to the same principles as those applying to gold exchanges. But there are no longer any true silver-silver exchanges.

The following may be laid down as the conditions which must be met before a country can lay claim to being fully and unreservedly upon the gold standard.

In Domestic Relations

1. There must be a gold money of ultimate redemption, actually available and not merely legally authorized to exist.
2. The unit of this must be a fixed (and not a variable [2]) physical quantity of gold.
3. This money must be subject to the right of free coinage for private owners of bullion.
4. It must be lawful to melt down this money at will.
5. The collateral or subsidiary forms of money must actually be maintained at parity with this gold money.

In Foreign Relations

6. There must be no legal or legally recognized interference with the free export and import of gold bullion.

During the great war nearly all countries prohibited or laid drastic regulations upon the export of gold. Whereas the United States undoubtedly maintained the gold standard throughout the period *in domestic relations,* it did not maintain it *in foreign relations,* because it prohibited the free export of the metal.

The essence of the gold standard is the convertibility of the unit of any form of money (as the dollar) into a fixed

2 Irving Fisher's plan for a dollar of *variable* gold contents (which could of course circulate only by paper proxy) would, if internationalized, it is believed, give us a better monetary system than the gold standard, but it would be idle to maintain that under this scheme we would still be on the gold standard.

physical quantity of gold metal at the will of the holder, and its counterpart, the convertibility of this same quantity of the metal into the unit of money at the will of the holder of the metal. It is the interchangeability of the fixed amount of the metal and the money unit in all its forms. In some instances certain subsidiary forms of money are maintained at a parity with gold money as a matter of fact, without their possessing strict legal redeemability. This gives rise to what is known as the *limping gold standard.* (*See* § 124 following.)

§ **103. Mint pars of exchange.**—What is commonly called the "value" of one gold money unit in terms of another, depends upon the relative amounts of pure or "fine" gold contained in the two. Thus the British unit, the pound sterling, is said to have a value of $4.8665+ in terms of the American dollar, because the pure gold required to make a pound sterling of coin (namely 113.0015+ grains troy) is $4^{8665}/_{10000}+$ times the pure gold used in making a dollar of United States coin (namely 23.22 grains troy). A somewhat objectionable but nevertheless common form of statement is that the pound sterling has a "fixed *intrinsic* value" of $4.8665+. This statement has no further meaning than that the pound sterling of coin contains 4.8665 times as much pure gold as the dollar of coin (the coins of both countries being taken as defined by law and the small errors that are unavoidable in minting being disregarded). The best name for the figure of 4.8665 is the *mint par of exchange* between England and the United States. A formal definition of this term would run as follows: The *mint par of exchange* between two countries is the number of the standard money units of the one country which contain the same quantity of the same pure metal as the standard money unit of the other country, both money units being assumed to have the exact pure metal contents prescribed by law. Regarding the mint

par the following observations should be noted: (1) There is no mint par between countries which lack a common metallic standard, as for instance between a gold and a silver standard country, or between a gold and an inconvertible paper country.[3]. (2) There are two ways of expressing any given mint par. One may set down, for instance, the number of German units that are equal to one French unit, or the number of French units that are equal to one German unit. Thus:

1 franc = .81 marks (81/100 of a mark).
1 mark = 1.23 francs.

This recalls the two principal methods of expressing any given foreign exchange rate. (3) The relative average weights of actual coin in circulation may be (and in fact always are) different from the exact mint par. There are two causes for this difference. The first is error in minting. It is impossible for mints to strike coin which shall weigh exactly what the letter of the law requires, and the law itself provides certain narrow limits of permissible deviation of the weight of newly minted coin from the exact legal standard. The amount of deviation allowed is in this country called tolerance. There is also a tolerance granted for error in fineness. In the second place the abrasion or wearing down of coin in actual cir-

[3] If an inconvertible paper country has a gold unit provided for by law which, however, does not enter into actual circulation, it is possible to give the figure showing the relative contents of this unit compared with any other national gold unit. Thus the laws of Brazil provide for a standard gold unit called the "Milreis" containing 12.68+ grains troy of fine gold. Therefore one milreis "equals" 54/100 of a dollar, and 8.91 milreis "equal" £1. The Report of the Director of the Mint (U. S.) gives the former of these figures as the value of the milreis in the general table, "Value of Foreign Coins." Such a figure may be called a mint par if one insists, but it does not have the same relation to exchange rates as does the normal mint par.

culation reduces its contents. If a standard coin's loss of weight through abrasion becomes too great, the coin either ceases to be legal tender, or else it becomes legal tender for an amount in proportion to its weight instead of at its nominal value. A certain amount of abrasion without loss of tender power at its nominal value, must be tolerated in a coin, and the law of each country provides what this amount shall be. While therefore according to the mint par, $48,665 of gold coin of the United States should contain the same amount of pure gold as £10,000 of English coin, this relation would not hold to the exact figure in case actual coin is compared with actual coin. If $48,665 of American gold coin drawn from circulation were shipped to England to be converted into new English coin it would in practice fall short of a weight sufficient to produce a full £10,000 of new English money. It would be equally true of course that £10,000 of English coin taken from the channels of trade and shipped to the United States would be on the average incapable of making the full $48,665 of new American standard money. (4) Mint pars are not affected by seigniorage and brassage charges, or by changes in these charges, so long as the contents of the money units remain unaltered. If the German mint should change its seigniorage charge from 6 marks to 60 marks per kilogram (*see* § 134) this would not mean that the weight or fineness of German gold coin would be modified, but merely that the government would return to the private owner of the bullion brought in for coinage, a smaller share of coin than before, reserving a larger share for itself. For either France or Germany to change its seigniorage would have no effect upon the mint par between these countries, since it would not affect the legal weight of their coins, but it would affect the "gold points" between them as it would affect the price of gold bullion in the country which alters its seigniorage (compare Chapter

XX). The effect of a very great seigniorage would be to make the mint par cease to be the approximate center of oscillation of exchange rates.

§ **104. Mint pars distinguished from actual values.**—Generally when we speak of the "value" of one thing in terms of another, we mean the *purchasing power* of the first thing over the second *in actual exchanges on the market,* this purchasing power being measured merely by the quantity of the second thing which the first will command in exchange. It is only proper to point out in the present connection that British sovereigns (or coins of one pound sterling) will virtually never show a purchasing power over American dollars at the exact rate of 4.8665 in actual exchanges of coin against coin. Sovereigns and dollars may be exchanged against each other directly or indirectly. We would have an instance of actual and direct exchange in case an American traveler should take his home gold coin abroad and offer it for sale for British money. If dealing in a small way with an English coin-broker, the traveler might find himself compelled to give up as much as $4.95 in return for one sovereign. The Bank of England frequently buys American gold coin in large lots from dealers, at the price of £3 16s. 4½d. per ounce Troy (gross weight of the coin).[4] What this price *per ounce* means as a price *per dollar of actual coin,* depends upon the condition of the coin. The more abraded it is, or the greater the deficiency in weight allowed in its original minting, the less will the fixed price of £3 16s. 4½d. (or £3.818 +) per ounce mean as a price per dollar. The sale of American gold coin of exactly full legal weight at this price would mean an exchange of about $4.87⅙ for a pound sterling. If the coin had a deficiency of 1-10 of

[4] The bank may change this price at its pleasure, but if it made the price too low the owners of the coin would decide to sell it as mere gold bullion. *See* § 131.

1% in weight it would take about $4.87⅝ to buy £1. But in all instances the value of the American coin in actual and direct exchange for British sovereigns is likely to be something different from the precise mint par.

In speaking of actual but *indirect* exchanges of dollars against sovereigns, we have reference to the buying and selling of foreign exchange. The purchase for dollars in New York of a cable transfer or a sight draft on London, amounts to an actual exchange, in as much as there is an actual transfer on the market of an article for a price, (of a draft for dollars [5]) and amounts to an indirect exchange of dollars against sovereigns because when the buyer gives up dollars, although he receives something convertible into sovereigns in England he does not receive sovereigns. We already know that exchange rates in the market may rest at figures other than the mint par. In fact examination of market reports will disclose that the exchange rates show no disposition to favor the figure of the mint par, or to rest upon it any oftener or longer than upon any other figure. The rate for sight drafts on London has no more tendency to rest at 4.8665 than it has at 4.8765 or 4.8590 or any other figure between the upper and lower limits which confine its fluctuations.

In a word, while it is good usage to refer to the mint par between dollars and pounds as the "value" of the pound in dollars (or *vice versa*), we must bear in mind that actual exchanges of dollars and pounds against each other, direct or indirect, show actual values in an economic sense, and these values are not commonly located exactly at the mint par. The importance of the latter figure, however, lies in the fact that under normal conditions it really governs the relative value of the money units in actual exchange, in the sense that it closely constrains the movement of this value. What one can ob-

[5] Or for bank credit convertible into dollars.

tain for home coin in actual sale to a broker or bank abroad depends on the mint par and certain other lesser factors of cost and profit to brokers or bankers. What an American can obtain for or must give for a bill of exchange on England depends fundamentally on the mint par between the United States and England and secondarily on certain other factors. The mint par is the approximate center of oscillation of the sight rate of exchange between any two gold standard countries, in times of freedom of gold shipments, and this rate can get only a very small distance away from the par in either direction. In the case of New York rates on London, the mint par is somewhat to one side of the point midway between the upper and lower limits of rate fluctuation: that is, as indicated it is an *approximate* center of oscillation of sight rates. For reasons that will appear in the chapter on gold shipments, the lower limit is at a greater distance underneath than the upper limit is above the par.

The mint par itself depends wholly on the national coinage laws passed by the governments of the two countries concerned. This explains at bottom what the relation is of national coinage laws to exchange rates. The English government defines the pound sterling in such terms as to make it contain 113.0015 + grains of pure gold, and the American government has defined its monetary unit in words that make it contain 23.22 grains of pure gold. The par follows from these legally fixed figures and cannot be changed except by a change of legislation. No merely economic force, no amount of alteration in the supply of or demand for gold, generally or locally, could have the slightest effect on the mint par.

§ **105. Free and gratuitous coinage.**—Stated as briefly as possible, the relation of the mint par to the exchange rates between two countries is this: the sight rate in one country on the other cannot rise more than a certain distance

above the figure of the mint par, because further rise will be checked by the export of gold from the country where the rate is rising.[6] In a similar way, a fall of the rate will be checked at a certain point beneath the par by the import of gold into the country where the rate is falling. The influence of the mint par upon exchange rates is confined to its regulation of these upper and lower limits, which are known as the "gold points."

The action of gold shipments to confine the rise and fall of exchange is dependent upon the maintenance in both countries of what is known as the system of free coinage. For, as will appear more fully later, the functioning of gold shipments in this manner is due to the fixity, or virtual fixity, of the price of the metal gold in each of the countries. This in turn is conditioned on free coinage in each. The *right of free coinage* consists in the privilege granted any owner of the standard money metal to present the same to the government mint to be manufactured into coin to be returned to him. It is the privilege of having bullion coined for oneself at the mint in quantities without a maximum limit. As a matter of convenience to the mint, a minimum limit must of course be set.

As the phrase is commonly used, especially in economics, the right of free coinage does not mean the right to have the service of the mint without charge. Free coinage does not mean *costless* coinage, but *unlimited* coinage. No doubt, however, it is ordinarily implied in the idea that there should be no greater charge made at the mint than one sufficient to cover actual costs. When minting is performed without charge to the depositor of the bullion, it is called *gratuitous coinage.* As a matter of public policy

[6] *See* § 137. We use the terms rise and fall on the assumption that the exchange rate is quoted according to the "direct" method. *See* § 22.

England and the United States strike coin gratuitously, but nearly all, if not all, other gold standard countries make a moderate charge for this service.

A charge levied for coinage is known as *seigniorage.*[7] If merely sufficient to cover the supposed cost to the mint, it is known as *brassage.* The modern gold standard country does not make a practice of exacting a seigniorage substantially greater than brassage.[8] To illustrate the usage of these terms we would say, for instance, that in England and the United States the coinage of gold is free and gratuitous, while in France and Germany we have the system of *free coinage with a brassage charge.* Free coinage is also referred to as *coinage on private account* because the coin manufactured under this system belongs to and is returnable to the private owners of the bullion from which it is made. The subsidiary forms of coin, or token moneys, are said to be coined on *government account,* because the government purchases the required metal on the open market and proceeds to make the coin for itself or for its own account. The government owns this coin after it is struck, and puts it in its treasury for expenditure, or for exchange against other forms of money on demand.

When coining is done on private account, it is not to be understood that care is usually taken to give the depositor of bullion the identical coin which is made from his own particular metal. The coining value of his deposit having been ascertained, the duty of the mint, or the great bank which in many countries acts as go-between,

[7] The term *seigniorage* is also used in a different though related meaning to indicate the profits made by government mints from the coinage of their subsidiary or token metallic moneys.

[8] The highest charge made anywhere is 1% of the value of the coin. Most countries have a charge ranging from about ½ of 1% upward. *See* table on pp. 976–7 of Swoboda's, "Die Arbitrage," edit. of 1909, Berlin.

is fulfilled simply by giving him the amount of coin which is his due. If the coining value (less charges if there are any) turns out to be a fractional sum, as say $5,837.30, token money must of course be used to pay the odd part, as the $2.30 in this case. It should be understood also that a depositor may take his returns in the shape of a warrant on a government office, or a check on a bank, or a deposit in the bank, or notes issued by the bank, which as go-between has purchased his bullion.

§ **106. Standard bullion: the two chief standards.**—Gold coin is not struck from pure or "fine" bullion; but is in present times made from bullion which is either $^{9}/_{10}$ or $^{11}/_{12}$ fine. Metal possessing the proper degree of fineness to be made into coin as defined by law is known as standard bullion. In France, Germany, the United States and the majority of other countries, standard bullion is $^{9}/_{10}$ fine; in England and a few other countries $^{11}/_{12}$. A fineness of $^{9}/_{10}$ is usually expressed by the figure .900, signifying of course 900 parts fine in a total of 1,000 parts, the other 100 parts, or $^{1}/_{10}$th, being of other metal (chiefly or wholly copper). A fineness of $^{11}/_{12}$ is expressed decimally as .916⅔. The copper or other extra metal is called the alloy. It is introduced into the gold to make it hard and durable. The standard bullion of the United States is permitted by law to contain both copper and silver alloy, the silver, however, not to exceed $^{1}/_{10}$ of the alloy itself, that is, 10 parts in 1,000 of the whole mass. Under this rule, small amounts of silver found in the gold as it comes from the mines may be left in to count as part of the alloy. If the silver appears in the natural bullion in sufficient quantity to make it pay to refine it out, such a course would be pursued before finally presenting the gold for coinage. Except in connection with the art of coinage, the word "alloy" is not used to signify one element (the baser one) in a mixture

of metals, but means the whole mixture itself. Thus for example, brass is spoken of as "an alloy of copper and zinc."

The right of free coinage means in the first instance the right to have *standard bullion* (*i.e.*, bullion .900 or .916⅔ fine) struck into coin. If the mint were to refuse to receive for coinage bullion of any other degree of fineness, the owner would of course be compelled to have it standardized at a private refinery. As a matter of practice, however, some of the mints of the world standardize gold as well as coin it, and exchange coin for deposits of bullion of other degrees of fineness than the standard. There are a number of rules and conditions governing this exchange, and these differ slightly in detail in the several countries. In some countries having a general brassage charge, bullion which is finer than the standard, and which differs from the standard (except for the presence of negligible quantities of impurities) only by the lack of a certain amount of copper as alloy, will be accepted at the same rating as if it contained the proper amount of copper. This means that the state supplies the copper without extra charge. In other words, if a man owns a bar containing 200 ounces of pure gold, he would receive just as much for it if the 200 ounces of pure gold were in a bar .999 fine as if they were in a bar exactly standard or .900 fine. It would not make his bar .999 fine fetch any more at the mint or bank, to add beforehand enough copper to bring the fineness down to .900. The United States mints, however, charge the depositor of bullion for the copper which may be required to bring it to the standard fineness of .900. After the bullion is brought to the standard, the United States converts it into coin gratuitously. For the refined copper that may be needed our mints charge the owner of the bullion 2¢ an ounce Troy. This is at the rate of 24¢ per

pound Troy, and 29⅙¢ per pound avoirdupois. At this rate the copper required to convert a fine bar to standard gold costs a little over 1-10,000 of the value of the fine gold itself figured at $20.67 per ounce. Thus the charge for copper is relatively an exceedingly small one.

CHAPTER XVI

THE MINT PRICE AND THE MARKET PRICE OF GOLD

§ 107. The striking stability of the market price of gold.—By the *price* of any given thing we mean the quantity of money for which a unit of that thing will exchange. By the price of gold we mean the quantity of money for which a unit of *gold bullion* will exchange. We do not mean by the price of gold, the purchasing power of gold money over commodities in general. In the United States and England gold bullion is priced by the troy ounce. In other leading countries it is priced by the kilogram. In countries which have the gold standard, the fact that the money, in terms of which gold bullion is quoted, is itself made of gold, does not make the quotation cease to be a price. The fact does, however, lead to the one striking consequence that the price of gold is an almost invariable figure in a gold standard country. In a silver or paper standard country the price of gold does not show any peculiar fixity.

The principal market of the world for gold is in London. Year in and year out, under all ordinary conditions, the price of this metal will remain between £3. 17s. 9d. and £3. 17s. 11d. per ounce $\frac{11}{12}$ fine. The utmost possible range of variation will be between £3. 17s. 9d. and £3. 18s. 1d.

£3. 17s. 9d. = 933 pence per ounce
£3. 17s. 11d. = 935 pence per ounce
£3. 18s. 1d. = 937 pence per ounce

The ordinary range from 933d. to 935d. per ounce, amounts to less than ¼ of 1% of the average price be-

tween the figures, and the extreme range of the price under the influence of unusual banking conditions, amounts to less than ½ of 1%.[1] Taking such great staple commodities as wheat, corn, cotton, steel, or copper, we find that the highest and lowest prices touched by any of them within a single decade will differ by an amount equal to from 80 to 100% of the price midway between the extremes. In other words, a staple commodity may have within a single decade a price range of 200 times that of gold, even taking the price of gold through the whole length of time during which a country maintains its gold standard statutes unaltered.

But one thing can change the limits which confine the price of gold in a country which has the gold standard, and this is a change in the legislation of that country or an abandonment of its execution. Neither the discovery of gold in the same abundance as coal nor the entire cessation of its production, would of themselves have any effect upon these limits. Either of such extreme eventuations would doubtless force changes in money legislation and would in this manner, although in this manner only, react on the price of gold. According to the estimates of the Bureau of the Mint of the United States,[2] the world's production of gold in certain selected years has been as follows:

Year	Product in Fine Ounces	Value of Product in U. S. Dollars
1873	4,563,000	$ 96,200,000
1880	5,148,000	106,400,000
1890	5,749,000	118,800,000
1900	12,300,000	254,500,000
1909	21,900,000	454,400,000

[1] The price of gold in dollars has in the New York market to-day even a narrower range than this.

[2] Report of the Director of the Mint (U. S.), 1910, p. 100.

Although the product of 1909 is nearly five fold that of 1873, the price of gold has remained unaffected by this increase.

§ **108. The mint price of standard bullion.**—The remarkable approach to fixity which we find in the market price of gold is simply a direct consequence of the absolute fixity of its mint price. By the *mint price of gold* is meant the quantity of gold coin which the mint of a gold standard country will deliver per ounce (or other physical unit) in exchange for gold bullion deposited with it for coinage. This price is fixed by those statutes which (1) define the national standard money unit, (2) establish the system of free coinage, and (3) set the charge, if any, to be levied by the mint for converting bullion into coin. In the United States, for example, the standard money unit is defined as 25.8 grains (troy) of gold 9-10 fine, and is given the legal name "dollar." The right of private persons to have their bullion converted into coin by the government mint was first laid down in the original coinage act of the United States, passed April 2, 1792. The right of free coinage was in the beginning given to owners both of gold and silver bullion. The present law governing the matter is the Act of Feb. 12, 1873, which explicitly confirms the right of free coinage, but confines it to gold alone. Since 1875 the mints of the United States have converted standard bullion into coin without charge to the depositor of the bullion. In virtue of these several statutes the mint price of standard gold is fixed at $\$18.60465+$ per ounce.

The statutes do not expressly declare that this figure shall constitute the mint price of gold, but their provisions of necessity imply it. Since it is declared that one dollar of coin shall contain 25.8 grains of standard gold, it is a mere matter of arithmetic that one ounce of this gold will make $18^{60}/_{100}$ dollars. There are 480 grains in an

ounce and 25.8 is contained $18^{60}/_{100}+$ times in 480. By providing for the "free" and "gratuitous" coinage of standard bullion the statutes make it compulsory for the mint to deliver this sum of coined money per ounce to the depositor of standard bullion. Thus \$18.60+ becomes the mint price of standard gold per ounce troy. If the statutes of the United States should be altered so that the definition of the dollar or "standard unit of value" should become, say, 48 grains of gold $^{9}/_{10}$ fine, this would change the price of gold in this country to \$10 per ounce of standard bullion, for then 1 ounce of gold would make just 10 units or dollars (480 grs. ÷ 48 grs. = 10). If the United States should suspend the free coinage of gold, while continuing the use of gold coin as standard money, this would abolish the mint price of gold, and would leave the market price of the metal free to fall below \$18.60 and to fluctuate on this lower side in much the same manner as other prices. Such an action would amount to an abandonment of the gold standard.

§ **109. The mint price of fine bullion.**—In every gold standard country the mint price of *standard* bullion depends upon the same legal elements as those pointed out in the illustration of the United States. In most countries, however, it is affected by a brassage charge for coining.[3] The mint price for *fine* as distinguished from standard gold, is simply deduced from that for standard gold. Take for example the figures for the United States. One ounce of standard gold contains 9-10ths of an ounce of fine gold, or 10 ounces of standard bullion contain 9 ounces of fine gold.

1 ounce of standard bullion = \$ 18.60456 +
Therefore 10 ounces of standard bullion = 186.0465 +

[3] *See*, for instance, sections to follow on the monetary systems of France and Germany.

Therefore 9 ounces of fine gold = 186.0465 +
Therefore 1 ounce of fine gold = 20.6718 +

9)186.0465 +

20.6718 +

In this manner, we calculate what is called the "mint price of fine gold," to be $20.67 + per ounce. It is not to be understood, however, that perfectly pure or fine gold is offered for sale at the mint. It is questionable if absolutely pure gold can be produced. The so-called "mint fine" bars used in international gold shipments commonly have had in recent years a fineness of .999 or better, and not long ago they varied between .992 and .999. A new process of refining accounts for this change. Gold which is refined to the most extreme purity possible and which is desired for chemical or other special purposes, has to bear an exceptionally high price to cover the expenses necessarily incurred in getting rid of the last elements of impurity. Thus the mint price of fine gold is not to be taken literally as a rate per ounce at which absolutely pure gold is in practice sold to the mint. For such sales are not made in fact. It is merely the base price for rating the coining value of the pure gold which is contained in the bullions of varying degrees of fineness which are in practice presented to the mint. Thus a thousand ounces of bullion .995 fine will contain 995 ounces of pure gold. .995 multiplied by $20.67 ÷ gives us the basic value of the bar, while a bar of a thousand ounces .850 fine would contain only 850 ounces of pure gold, and would have a basic value of 850 × $20.67 +. Whether a given bar possesses its full basic value for actual sale to the mint depends upon whether any expenses have to be paid out of this value by the owner to make the bar finally acceptable for coinage. Information on this subject will be found in the sections devoted to the detail of the monetary systems of the leading countries.

§ 110. The market price of gold.—Where there is organized and continuous dealing in gold bullion, the competition of buyers and sellers establishes the *market price of gold.* Gold dealers have, of course, a lawful right to trade at any prices they see fit to make, but in a gold-standard country they will never see fit to make prices more than a small fraction of 1% away from the mint price. The mint price being rigidly fixed, this accounts for the remarkable steadiness of the market price of the yellow metal.

That the market cannot stand very much below the mint price is evident because every holder of bullion (except in undersized lots) has the option of exchanging it for the mint price by the simple method of depositing it at the mint for coinage. He could not be expected to take less than $20.67 a fine ounce in the United States, when a fine ounce will make 20.67 dollars of gold coin all of which will be delivered over to him.[4]

Again, so long as a country is on the gold standard, the market price of gold metal cannot rise appreciably above the mint price for the reason that the metal can always be obtained at substantially the mint price by the method of melting down gold coin.[5]

In the first place, if the gold standard prevails, a unit of any kind of lawful local money can be converted at will

[4] Except for the very small charge for standardizing the bullion.

[5] The notion sometimes held by the man on the street that it is unlawful to melt coin is erroneous.

A country might be on the gold standard without having actual gold coins suitable for circulation. In this case it would have paper notes or certificates representing the gold in the circulation, which would be procurable by a citizen only through giving up a fixed physical quantity of bullion and which would be redeemable in this same (or nearly the same) physical quantity of bullion. Here the *price of gold,* namely the exchange rate between gold metal and money, would be invariable.

into a unit of gold coin. In the second place, if this coin has the exact weight and fineness prescribed by law, the metal which it will yield when melted down will cost precisely the mint price. This is a mere matter of mathematical necessity.

Thus suppose that instead of buying $1,000 worth of gold metal in the open market a manufacturing jeweler melts 100 U. S. eagles or $10 pieces of full legal tender value. The ingot of bullion obtained obviously costs $1,000, for $1,000 of money had to be surrendered to secure it. If the coin is of full weight and fineness, it will contain 23.22 grains of fine gold per dollar, or a total of 23,220 grains. This makes 48⅜ or 48.375 ounces Troy (23220 ÷ 480), and if 48⅜ ounces cost $1,000 each ounce costs $20.67. This matter hardly calls for extended argument.

If a full weight gold coin is melted it yields an ingot of standard metal which can be converted back into the same coin at the mint, and therefore the metal is worth a mint price equal to that coin, so that when the coin as such was destroyed to get the metal, the metal costs exactly its mint price.

The practical resort to the plan of melting coin almost always involves a small increase in the cost-price of the bullion procured, by reason of the coin's being a trifle short of full content. The chief cause of this condition is abrasion in circulation. A very minor cause is error in minting. Suppose the 100 eagles of the preceding illustration lack 50 grains of their full fine contents (being thus a little over ⅛ of 1% short), and therefore weigh 23,170 grains fine. If 23,170 grains cost $1,000, the rate is at $20.71 per fine ounce.

The foregoing is a mere illustration, but it serves to show that the theoretical upper limit of the market price of gold is a certain small distance above the mint price—

a distance depending to-day primarily on the average degree of abrasion of actual coin.[6]

Under conditions where an abundance of new gold flows from the mines into the channels of commerce, the amount of melting down of coin is much restrained. Perhaps in present days over two-thirds of the world's new gold goes into the money use. The demand for the one-third put to the manufacturing and arts uses is doubtless in great part satisfied by a direct application of new and uncoined bullion to these uses. The Bureau of the Mint (U. S.) gives the following estimates:

In 1909

	Fine Ounces	Value in U. S. Dollars
World's production of gold[7]	21,980,000	$454,000,000
World's coinage of gold[8]	15,150,000	313,000,000
World's industrial consumption of gold[9]	6,893,000	142,000,000
Amount of gold coin used in the arts in U. S.[10]		3,500,000

One should bear in mind that industrial "consumption" does not necessarily mean the destruction of gold or even the fabrication of gold into forms which preclude its return to the money use. Much old manufactured gold returns to the mints of the world for coinage. Also it should be noted that the world's industrial "consumption" of gold in any given year does not have to come out of the new product for that particular year, as the immense existing stock may be drawn upon.

[6] Compare § 128, pp. 489–91, on "tolerance" in the United States.

[7] Report of the Director of the Mint for 1910, p. 100.

[8] The same, p. 61.

[9] The same, p. 59.

[10] The same, p. 57.

§ 111. The fluctuating purchasing power of gold.—We perceive that the fixity of the price of gold is due to the fact that gold bullion is quoted in terms of the gold coin into which it is freely convertible under the system of free coinage. The fixity of the price of gold is not a sign of a fixed economic value. One must not infer that the steady price of gold gives at least some indication of the steadiness of its value. The truth is it shows nothing whatsoever about the value of gold, if we mean by the value of gold, as we should, its purchasing power over other things, that is, over the mass of other goods or commodities. The rise or fall in the purchasing power of gold coin is shown solely in the fall or rise of the general average of the prices of all commodities. To illustrate the point, let us consider the purchasing power of gold coin over some one commodity, as wheat. If the price of wheat is $1 a bushel, a gold dollar has the power to purchase 1 bushel. If the price rises to $2 a bushel, the purchasing power of the dollar declines to ½ bushel, and if the price falls to 50¢ a bushel, the dollar's purchasing power ascends to 2 bushels. To double a price cuts the purchasing power of the money unit to one-half; to cut a price to one-half doubles the money unit's purchasing power. We express this by stating that the value of money in terms of any one commodity varies *inversely* as the price of that commodity. The value of money in terms of all commodities, or commodities in general, varies inversely with the average movement of the prices of all commodities.

If we are, for instance, able to say that in the last decade the prices of goods generally have gone up about 1-3, or to 4-3 as high as they were ten years ago; we should then also affirm that the general purchasing power of money is ¾ as much as it was 10 years ago. There are many difficult and interesting problems involved in the

task of getting a statistical record of the variations of prices and the purchasing power of money.[11]

The point with which we are concerned here is that the purchasing power of gold may change and that while this purchasing power is changing, no matter how much it is changing, the price of gold will remain as nearly invariable as ever. Not far back we pointed out the fact which is at first thought somewhat surprising, that except within exceedingly narrow limits, the price of gold is not affected by changes in the supply of and demand for that metal. It is to be understood that changes in supply and demand may indeed have an indefinitely great effect upon gold, but only upon its value, or purchasing power, as distinguished from its price. The answer to the question, what does the fixity of the price of gold show with respect to the value of gold—value being used in the sense of purchasing power—is that it shows nothing whatever.

[11] Series of figures which show the movement of general prices, or of "the general price level," are called *index numbers.* Among the best books on this subject are, "The Measurement of General Exchange Value," by C. M. Walsh, and "The Fundamental Problem of Monetary Science," by the same author, and "The Purchasing Power of Money," by Irving Fisher. An excellent book is also "Money and Credit Instruments in Relation to General Prices," by E. W. Kemmerer. See also "Making and Using of Index Numbers," by W. C. Mitchell, in *Bulletin of U. S. Bureau of Labor Statistics,* No 173, July, 1915, pp. 5–114.

CHAPTER XVII

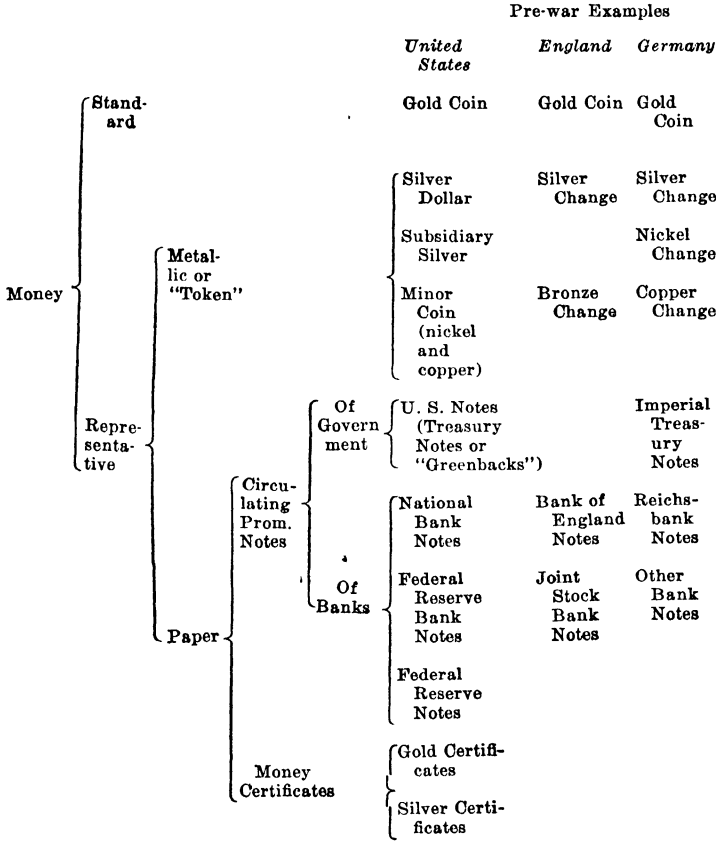
STANDARD MONEY

§ 112. The several forms of money in a modern monetary system.—Every modern country has a number of forms of money, some of which are accounted for by reasons of commercial convenience, others by reason of economy of maintenance in circulation, still others by reasons touching the fiscal necessities of the government. Any gold-standard country will be found to possess to-day either all, or a large part, of the several forms of money shown in the table on page 454.

§ 113. Standard and representative money.—The foregoing fall into the two grand classes of standard and representative money. To define the latter first, *representative money* comprises all those forms which have their value determined by the value of the standard money. A representative money is one which is kept in a legally fixed value ratio with, or "at a parity" with, the standard money.[1] It is in this sense "representative" of the standard money. The best method of maintaining the parity of collateral forms of currency is to provide for their constant and direct redemption in the money which they represent. Were this method universally followed, it would be best to give the class the name of "redeemable money." But in practice other means than direct redemption are sometimes made to suffice in maintaining parities, and so we must be content with the less definite name of "representative money."

[1] Or is designed to be kept at this parity.

FORMS OF MONEY FOUND IN THE MODERN GOLD TANDARD SYSTEM



By *standard money* we mean simply the represented money, or the form of money with which all the others are maintained at a parity. And the only fundamental distinguishing feature of standard money lies in this single fact that other forms of money are kept at a parity with it, while there is no other form of money with which it is

kept at a parity. It is true our literature affords other definitions. Jevons, for example, makes the test of standard money that its value in exchange should depend solely upon the value of the material contained in it.[2] To accept this would prevent our speaking of a "fiat" or "paper standard" money, since the value of such a money is entirely independent of its material contents. In point of fact we find the use of the term *fiat standard money* so convenient as to be practically compulsory. There is no need of adopting the definition of Jevons, for according to him, many countries do not have a standard money! The workable conception is simply that standard money is the money of ultimate redemption.

§ 114. **Approved characteristics of standard money.**—It is true, general opinion has it that standard money ought to possess certain other well marked attributes or characters besides being the money of ultimate redemption. It is generally agreed it should be a metal money and gold at that. It is held it should be subject to the right of free coinage, or coinage on private account, without a greater seigniorage charge than brassage, and should thus possess substantially full bullion value. To affirm the expediency of these characteristics is not to admit them as elements in the definition of standard money. The money of ultimate redemption should, and, so far as the writer's knowledge extends, always does possess full legal tender power. But this is not distinctive of standard money since instances abound where representative moneys possess this power as well.

To summarize, the following statements hold true of what is generally regarded as the highest type of standard money, the type that has been possessed by the leading financial and commercial nations.

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2 "Money and the Mechanism of Exchange," p. 74.

(1) It is gold.
(2) It is subject to free coinage.
(3) It has (as a consequence) full bullion value.[3]
(4) It has full legal tender power.

§ 115. Commodity and fiat standard money.—There are two grand classes of standard moneys. The one, made of a valuable substance, as gold, under the system of free and gratuitous or virtually gratuitous coinage, may be called *commodity money*, this being a term already in use for money with full bullion value.[4] The other, made either from a practically valueless substance, as paper, or made from metal with less value than the coin itself and coined only on government account, has long been known as *fiat money*. Fiat money is usually thought of as being irredeemable paper, but there can be no question it may also be a money made of metal. If a government with irredeemable paper should take to making the individual pieces in the form of aluminum or silver sheets with appropriate marks upon them, this would not remove its money from the fiat class. Nor would changing these sheets to round disks called coins make any difference. When in 1893 the government of British India suspended the free coinage of the silver rupee, this money became a metal fiat money. Within four years the value of the rupee coin ascended to 50% above the value of its metal contents. That is, in 1897 the average rate of exchange for the year in India on London was about 15.35d. This means the rupee could purchase 15.35 pence of British

[3] Signifying that the ingot of metal obtained by melting any of it will have (substantially) a money price equal to the amount of money melted, *e.g.*, a $20 gold piece when melted becomes an ingot salable for $20. There is no magic in this full bullion value. It is a mere incident to the system of free coinage.

[4] Compare J. F. Johnson, "Money and Currency," Chapter ix, §§ 116 and 117.

gold. At the average price of silver for 1897 in the central market of London, the metal contents of the rupee were worth as bullion about 10¼ pence. The rupee had become a fiat money made of silver. In 1899 the Indian government adopted measures to maintain the rupee at the practically constant value of 1-15th of a pound sterling. These measures were of a character to place India on the "gold-exchange" standard. At the same time the English sovereign was made legal tender in India at the rating of 15 rupees. By similar measures, the government of Brazil has usually in recent times maintained its paper "milreis" at the value of 1-15th of a pound sterling. It had a fiat money made of paper which it decided to place in a constant ratio with a foreign gold unit. This money became virtually and indirectly redeemable in gold, and will continue in this position so long as the measures of the gold-exchange standard are upheld. It would therefore now seem proper to classify it as representative money. But these measures are not in the least necessary to make the rupee and milreis have a value in the sense of purchasing power over commodities, and a value wholly independent of the material of which these moneys are made. History simply abounds in instances which show the permanent feasibility, by limitation of quantity, of maintaining the value of an entirely irredeemable money (once it is established in customary circulation) above and wholly independent of the value of its material.[5]

Suppose that England, while allowing her monetary system to remain otherwise unmodified, were to terminate the free coinage of gold. Unless the government should continue to coin as many sovereigns on its own account as would have been struck under free coinage, the value of

[5] The greatest collection of information on this point known to the writer is to be found in "Staatliche Theorie des Geldes," by G. F. Knapp.

the sovereign would ascend above the value of its gold contents. But England would still have a standard money. It would have a fiat standard money made of gold! The thing that brings a standard money within the fiat class is the fact that the value of the money pieces comes to exceed and move independently above the value of the material which composes them.

Representative moneys generally have a value much in excess of the value of their material contents, because the standard money with which they are kept at a parity has this superior value. In other words, representative moneys have material values which are nothing at all or which may be greatly reduced compared with their nominal or redemption values. This, however, does not make them belong to the class of fiat moneys. For this term properly applies only to standard moneys, which are not themselves redeemable in any other form of money.

§ 116. Contrasts in respect to regulation of quantity.— The commodity and fiat systems of money differ as regards their operation or behavior in two respects. And these differences are of fundamental importance. In the first place, the quantity and value of a commodity standard money are matters which the state leaves to be determined by the free play of private interests. This is not the case with fiat money. In the second place, a commodity money is exportable as bullion to settle accounts in other countries, while a fiat money is not.

The effect of the free coinage plan of providing commodity money is to make the quantity of standard money created and put into monetary use depend simply upon the action of private owners of bullion. And since this money, as bullion, has commodity uses and may be melted down for these uses, and since it is also exportable as an article of value to other countries, the quantity of it which is retired from circulation depends also upon the free ac-

tion of private owners of coin. Since both the entry of gold into and its departure from the money reservoir, depend wholly on business conduct and not upon measures of government, the quantity of the standard money remains independent of state regulation. This signifies that the value of this money—its purchasing power, as shown in the general level of prices,—likewise remains independent of state regulation, at least at this point of regulation.[6] In legal phrascology it is said that the government "determines the value" of standard coin. This holds only in the sense of determining *the quantity of gold contained in that coin.* Thus the United States statutes provide that the "eagle" shall contain 258 grains of gold 9/10 fine. It is not uncommon to speak of this as a determination of the "value" of the coin. *Value* here means nothing whatsoever beyond *material contents.* Without tarrying to argue about this questionable usage, it must be said the value of the money unit, in the sense of its purchasing power over ordinary goods, is something wholly different. Value in the sense of material contents is invariable and fixed by law, but in the true sense of purchasing power, it is variable and in countries with the commodity standard, its variations are independent of governmental control. Of course the larger the metallic contents fixed by the government for the money unit, the larger its purchasing power will be, but once the contents are fixed the future course of purchasing power is uninfluenced by the government.

The quantity of fiat money, once the system is running,

[6] There is another point at which it is feasible for the state greatly to influence (though hardly to regulate) the general level of prices and purchasing power of money, and this is at the point of control of the expansion or contraction of bank credit. The American state has at present an agency which can exert such an influence, though only to a certain extent, in the shape of the Federal Reserve Board.

depends upon the amount manufactured by the government. It has been the custom of governments to manufacture it altogether too freely, to substitute the creation of fresh batches of it for the collection of taxes. Hence fiat money has become notorious for its propensity to increase in volume and depreciate in purchasing power. Given wisdom of control, fiat money is theoretically superior to a commodity money, judged from the standpoint of social welfare, but up to the present few have had much confidence in our ability to achieve the requisite wisdom in control.

§ 117. **The quantity of money and its value.**—The value of money depends in part upon the quantity of money, and if the state desires to permit the quantity of money to take care of itself, the state thereby rejects the only means open to it fully to regulate the value of money. The theory of the state is, of course, that to leave the economic value of money alone is the course of wisdom. At the present point this book will be brief and therefore by necessity frankly dogmatic. The value of money depends in part upon its quantity and in part upon the volume of exchanging, or volume of business, or amount of money work to be done. It depends also upon the rapidity of the circulation of money, and upon the extent to which the business world is accustomed to use credit instruments as substitutes for money itself in effecting exchanges. The value of money does not depend *solely* upon the quantity of money, but the quantity of money is the one factor among all those we have named which we might conceive of being regulated by the state. Such factors as rapidity of circulation, employment of credit substitutes to effect exchanges, and the volume of exchange itself, are beyond government *control*,[7] though the use of credit substitutes

[7] Furthermore, these factors are relatively stable, depending upon business and banking habits that are quite slow to change.

is not wholly beyond governmental *influence.* We may explain the substance of the relation of the quantity of money to its value—and thus give the substance of the so-called *quantity theory*—in various formulas. Thus, *if* at any given time (*i.e.,* under any given set of commercial conditions) *there should* be more standard money than in fact there is, the money *would* have a lower value than it in fact has, and *vice versa.* Or again, *other things remaining unchanged,* the more money the less its purchasing power, and *vice versa.* Essentially the same proposition is that an increase in the quantity of money *tends* to decrease its purchasing power, and *vice versa.* The latter form of statement gives perhaps the clearest recognition to the fact that an increase in the quantity of money may be accompanied actually by an increase in its value, or a decrease by a decrease in its value (although both of these are, as it were, contrary to expectation) simply because other factors may act in opposition to and overcome the tendency of the change in the quantity of money. The doctrine has at times been criticized as being "barren" or without consequence. It is, however, both true and consequential.[8] The consequence which flows from it is that any action affecting the quantity of money

[8] In general the quantity theory proves of basic importance in accounting for the behavior of monetary systems, notwithstanding certain misguided attacks made upon it in recent times. Should a reader unacquainted with the literature of the subject desire to examine into it, he would do well to begin with Irving Fisher's "Purchasing Power of Money," and J. F. Johnson's "Money and Currency" (appropriate chapters), and pursue references found in these works for further investigation. These are works which from the present writer's standpoint may be recommended as giving the best explanation in form and substance of the quantity theory. In them references to the literature of criticism of the theory will be found. A leading critic has been J. L. Laughlin. *See* his "Principles of Money." Any book on money gives some attention to the subject.

affects its value, and makes its value different from what it would otherwise have been. Indeed, given the power to regulate the quantity of money, there is given the power to regulate its general purchasing power or the *general level* of prices, despite such changes as can take place in the other institutional factors which help determine this level. To deny the significance of this would be on a par with denying the significance of the proposition that control of the supply of wheat would mean control of its value, on the grounds, forsooth, that the value of wheat also depends upon the demand for it. No government controls the demand for circulating medium, for this depends upon the volume of business. But in the case of a fiat system the government controls the supply of standard money, while in the case of a commodity money this supply is made to take care of itself.

§ 118. The fluctuations of the value of gold commodity money.—The course of the value of gold commodity money from 1789 to 1897 has been summarized by Irving Fisher as follows:

(1) Between 1789 and 1809 the exchange value of gold against commodities in general fell to just about one-half of what it was at the beginning of the period.

(2) From 1809 to 1849 the value of gold ascended to about two and one-half times what it was at the commencement of this period.

(3) From 1849 to 1873, with two notable interruptions, gold's value fell to something less than three-quarters of what it was in 1849.

(4) From 1873 to 1897 (a noteworthy period of falling prices accompanied by much political agitation on money questions) the value of gold ascended to about one-fourth higher than in 1873.[9]

[9] "The Purchasing Power of Money," pp. 240–46. Fisher summarizes the rise and fall of prices. In our text his figures have

From 1897 to 1914 there was a great rise of prices. According to the index numbers of wholesale prices published by the United States Bureau of Labor,[10] amounted to about 50%, indicating a fall in the purchasing power of gold to about ⅔ of what it was in 1897.

§ 119. The exportability of commodity money.—The second principal difference in operation between the commodity and fiat standards, lies in the fact that commodity money is regularly exportable as bullion. The rates of exchange between two countries possessing the same commodity standard are, by reason of this fact, confined within relatively very narrow limits of fluctuation. To-day the only commodity standard of consequence which is common to a group of countries is gold. China and Persia alone remain with a silver commodity standard. As already indicated, the exchange rates in any given gold country upon any other gold country, cannot rise (in the sense of becoming dearer) more than a certain distance above the mint par without causing a gold export which checks further rise. Likewise they cannot fall more than a certain distance below this point without occasioning a gold import, which checks further fall, and in normal times the full range of fluctuation in the American sight rate on England is, for example, about 1% of the average between the extremes.[11] To give but one instance of the fluctuation in a rate of a fiat country upon a gold country, in the year 1896 the rate in Rio Janeiro upon England varied from the high point of $7^{29}/_{32}$ English pence for one Brazilian milreis to the low point of $10^{11}/_{32}$d. per milreis. The range of variation here amounts to 22.8% of the average of these two rates! The fact has already

been inverted so as to give the fall or rise in the purchasing power of gold.

10 *Bulletin of the Bureau of Labor*, No. 200, July, 1916, p. 13.

11 That is, in times of peace, when both countries are truly on the

been mentioned that the Brazilian government is now taking measures to confine the rate on England within relatively narrow limits, but the example given shows that fiat exchanges may do when not controlled. The price of exchange in one fiat country upon another fiat country may naturally enough run over a greater range of variation than that found for any other kind of exchange. The fundamental point is that neither of such countries can by export convert its standard money into that of the other, and the steadying influence, of such movements as gold export and import between gold countries, is entirely lacking. The fluctuations of the exchanges between a gold and a *silver* country are confined within certain limits set by the export and import of specie, these limits having the relative value of gold and silver as their approximate center.[12] Since the relative value of gold and silver is changeable, the limits which confine the movements of gold-silver exchanges are changeable. In the gold standard countries the relative value of gold and silver is shown in the price of silver. Especially during the last forty years, the price of silver has been exceedingly variable in terms of gold and the gold-silver exchanges have shown corresponding instability.

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gold standard, and when there is competition between foreign exchange houses and when banks are paying legal tender on demand.

12 This center corresponds in many respects to the mint par of the gold-gold exchanges, but it is not a mint par, and differs from the mint par in that it is movable.

CHAPTER XVIII

REPRESENTATIVE MONEY

§ 120. The nominal and bullion values of token moneys.—Representative money falls into the two subclasses of coin and paper. The term "token money" usually means coined representative money, and is usually restricted to this meaning, though occasionally it is extended to include all representative money. Paper representative money is of two kinds, (1) the circulating promissory note, and (2) the money certificate. The latter, though resembling a circulating demand note in many essentials, is distinguished by the fact that it can be issued only against the deposit, by the person receiving it, of its full amount in some specified kind of money, and by the fact that any such money must be held as a special trust fund to be used solely for the purpose of redeeming the certificate, so that the outstanding certificates are always secured by a 100% reserve. The gold and silver certificates, and the former "currency" certificates of the United States, and the Philippine "silver" certificates issued under the authority of the United States, are examples.[1] So far as the writer's knowledge extends, this type of representative money is issued only by the government of the United States, but

[1] During the first three years of its existence the Philippine silver certificate was exactly what its name implies, but by act of June 23, 1906, Congress provided that gold coin of the United States might be used to discharge these instruments at the rate of $1 for 2 pesos and that such gold coin might be substituted for silver in the trust fund though not to exceed 60% of this fund. The Philippine certificate is now a gold and silver coin certificate.

it should be said the Bank of England note, while not a literal gold certificate, comes very close to being one, so that it might be called a virtual gold certificate. (Cf. § 129.)

The circulating promissory note may issue in a diversity of ways either from governmental treasures or from banking institutions. The reason for including this instrument in the category of money was discussed in § 2 of this book. In present day practice these notes are payable on demand and do not bear interest. They are secured by cash reserves and other assets under the very greatest variety of rules throughout the world.

In dealing with metallic representative moneys, we often have occasion to distinguish between their *nominal* and their *bullion values.* Thus the nominal value of the largest silver coin of the United States is $1.00, and when silver sells at 60¢ per fine ounce its bullion value is about 46½¢. Paper representative money has a nominal value of precisely the same nature as that which belongs to token coin, but it has corresponding to the bullion value of the latter only the value of the paper on which the notes or certificates are printed, which is wholly negligible. Thus in representative moneys generally, we may distinguish (1) nominal value, and (2) material value, or the value of the material of which the money is made.

But this class of money possesses still another kind of value which makes itself distinct in times of monetary derangement. This we may call actual or circulation value. Suppose that a silver dollar were capable of buying only ¾ as much in trade as a standard or gold dollar at a time when the price of silver is 65¢ per fine ounce. Under these assumptions this money piece would have (1) a nominal value of $1, (2) an actual value of 75¢ and (2) a material or bullion value of 50¢. It is the design of the state to maintain the actual value of its representative money at

its nominal value. When its actual value is held exactly at its nominal value, a representative money is said to be "at a parity." But when a state fails to maintain such money at a parity, it does not of necessity follow that its actual value should drop to the level of its bullion or material value. Were this a necessary consequence, the moment paper money should fall below par it would have to drop all the way to zero! And thus there is nothing absurd in supposing that a silver dollar might have a nominal value of $1, an actual value of 75¢, and a third or distinct value as bullion of 50¢. When everything is as it should be, the nominal values and actual values of representative moneys are the same.

"Nominal" value is an appropriate term, because the value of a piece of representative money depends on the words which it bears, or on its legal name. It is in this sense the value is nominal. This is really no more difficult to understand than that the value of a promissory note depends upon the words it contains and not upon the amount of the paper on which it is written. The value of the promissory note is, of course, nominal in precisely the same sense. In fact, when representative money is expressly redeemable in standard money, it amounts to a promise or order to pay the latter. When the government manages by indirect redemption rather than by direct, to support its value, the same thing remains virtually true.

It is to be kept in mind that all three of the values which we have distinguished as belonging to representative moneys are measured in standard money. When we supposed that in the United States the silver dollar might have at a given time a nominal value of 100¢, an actual value of 75¢, and a bullion value of 50¢, all three of these figures signify cents in gold. Thus the supposition is that though the dollar is by name designed to represent 100¢ gold, it shows

a purchasing power in trade the equivalent of 75¢ of gold, while it melted down into bullion the ingot which it would make would sell for 50¢ gold.

§ 121. The coining value and market value of token bullions.—It is characteristic of metallic representative money that its nominal (and thus normally what we have called its "actual" value) exceeds its bullion value. Furthermore its bullion value, in contrast with that of "commodity" standard money, fluctuates freely, because the metals of which representative moneys are made (silver, nickel, and copper) have variable market prices. This brings us to the distinction between the coining value and the market value of token bullion. This distinction is the same for copper and nickel as it is for silver, but we need consider it only in connection with silver. The *coining value* of silver is the amount of silver coin which can in accordance with the legal definition of this coin, be made from an ounce (or other physical unit) of silver bullion. In the United States the coining value of silver is quoted per fine ounce troy, and it is \$1.2929+, for the reason that one ounce of fine silver with alloy will make $1^{2929}/_{10000}+$ silver dollars. This figure is calculated as follows:

The legal weight of the silver dollar = 412.5 grains .900 fine.
The fine silver in the dollar = 371¼ grains (412.5 × .900).
And if 371¼ grains make one dollar, 480 grains (or 1 ounce) will make 480 ÷ 371¼, or 1.2929 + dollars.

The coining value of an ounce of fine gold is \$20.67+. Under the right of free coinage this also becomes, as we have seen, the mint price (or speaking with greater accuracy, the mint's basic price[2]) for fine gold. If we had free coinage of silver, \$1.29+ would, of course, become in the same way the mint price of silver. In point

[2] Cf. § 109.

of fact, prior to 1873 the United States did have free coinage of silver, and the mint price of silver was $1.2929+ per fine ounce and $1.1636+ per "standard" ounce .900 fine.[3] But to-day silver is coined on government account only. The government buys so much of the metal as it needs for coinage upon the open market at the fluctuating market price. The difference between this price and the bullion's coining value, constitutes the gross profit or seigniorage gained by the government in the manufacture of silver coin.

Curiously, silver has two coining values in the United

[3] From 1792 to 1873 the United States had a system of legal bimetallism. The coining value of gold per ounce was set at (almost) 16 times that of silver, giving the now famous "ratio" of 16:1. It happened that during a great part of the period from 1792 to 1873 silver bullion had in the open market of the world a price in gold above $1.29 per fine ounce. Thus in 1851 an ounce of silver .925 fine (*i.e.*—British "standard" silver—called "standard" silver although since 1817 a token bullion in England) sold in London for an average price of 61d. This price was payable in gold coin of England. If the sight rate of New York on London were at 4.86½, a New York dealer could ship silver from New York to London, sell it at the rate of 61d. per standard ounce, draw his sight exchange (payable in gold in England) and realize $1.337 less expenses, per fine ounce by the sale of this exchange for gold coin in New York. In 1859 the London price of silver rose to the point which gave a New York equivalent of $1.36 per fine ounce. Thus the mint price of $1.29+ failed to govern the market price in the United States. There is nothing in this contradictory to the principles explained in §§ 108–110 concerning the relation of the mint price to the market price of standard bullion under free coinage, for those principles apply only to the case of monometallism. The principles of bimetallism (we might say, of successful and unsuccessful bimetallism) make a subject so large we cannot enter upon it, but by way of summary we may state that under bimetallic statutes the market price, payable in local legal tender coin, of neither standard metal can fall below its mint price, although the price of either one or the other (though not of both at once) may rise indefinitely above the mint price.

States. The one heretofore discussed is its coining value for the making of silver *dollars*. It has a different rating for manufacture into "subsidiary silver," or pieces of 50¢, 25¢, and 10¢, because a dollar's worth of these coins does not contain the same weight of bullion as the one-dollar piece of silver. The law provides that two halves, four quarters, or ten dimes shall contain 25 grams (metric) of silver .900 fine. Twenty-five grams is the weight of the French silver 5 franc piece. The United States mint adopts 385.8 grains troy as the official equivalent of 25 grams, and thus a dollar's worth of subsidiary silver coins contains as near as possible to 385.8 grains of silver .900 fine. The table below is self-explanatory.

COINING VALUE OF SILVER IN THE UNITED STATES

	Gross Weight Grains	Fine Contents Grains	Coining Value of Silver Per ounce 1.000 fine	Per ounce .900 fine
The silver dollar.....	412.5	371.25	$1.2929*	$1.1636*
A dollar of subsidiary silver	385.8	347.22	$1.382**	$1.244**

* *I.e.*—coining value for manufacture into silver dollar pieces.

** *I.e.*—coining value for manufacture into subsidiary silver pieces.

$1.29+ is the figure which is commonly given as *the* coining value of silver in the United States. But it is in fact the figure of $1.38+ which indicates the seigniorage enjoyed by the mint as manufacturer of subsidiary silver, and at present this is the only form of silver which our mints coin regularly. In statistics the value of silver may be given either as its "commercial value" (price per ounce in gold) or its coining value. When the coining value is the one given it is always calculated at the rating of $1.29+ per ounce, and not at $1.38+. This is because the former figure was once a mint price of silver in the

United States, while the latter never possessed that distinction.

In each of the different countries where silver is used as token money, it has its particular local coining value, as 7.45 francs per fine ounce in France, or 6.22 marks in Germany.[4] These several coining values have no relation to the present day market price of silver, though all have historical relations with the former price of silver bullion in the days when silver was a standard instead of a token money. This is the place to call to mind the fact that the comparative silver contents of the token coins of different countries have no relevancy to their comparative values as moneys. For the silver in the mark, the franc, the shilling, or the dollar, has, as we have seen, no bearing upon the normal money value of these pieces.

§ 122. **The non-exportable character of representative moneys.**—Under normal conditions a representative money is commercially non-exportable. In this respect it is in sharp contrast with commodity standard money. We cannot say that a representative money is absolutely non-exportable, because it is generally possible for individuals to send or take any form of representative money abroad and, if it is in appreciable quantities, to obtain for it something approaching its full nominal converted value in foreign money. But when such a money does go abroad, the only economical use to which it can be put by the dealer who gives foreign money for it, is to send it back to its home country. Thus as we may express it, representative money is not *finally* exportable. And for the very reason that when it is sent away from home, some one must bear the expense of sending it back, it can rarely be employed commercially as a means of remittance. In any

[4] Converted from the metric system in which the French and German money units are legally defined.

event it is clear it cannot be used as a final means of discharging a national balance of indebtedness. Thus, when it comes to pass that the United States,[5] having become indebted abroad in a greater sum than its credits against foreign places, needs to export say $1,000,000 of money on balance, if gold is sent it may be converted into foreign standard money and thus finally liquidate the indebtedness. But if $1,000,000 of United States Notes or gold certificates should be sent, since they could neither enter directly into circulation abroad nor be manufactured over into foreign money, they would merely come back home and only by paying for them in something that can stay abroad could the United States permanently liquidate its balance of indebtedness.

The Bank of England note is preëminent among representative moneys for having a general acceptability in parts of the world foreign to the home country. Just as New York exchange is readily salable in almost any part of the United States, so London exchange has a good market in almost any part of the civilized world. The Bank of England note is, of course, a very superior form of sight sterling exchange. In large lots, these notes could naturally be sold for the very highest exchange prices. In small quantities they bring a reasonable price in any commercial capital of the world. Without taking the trouble to make a statistical study of the average price of foreign bank notes in relation to the rates for bankers' sight drafts, we may give the following quotations for a single day as being of interest. The prices given for bank notes are those offered in New York on February 17, 1912, by Zimmerman and Forshay for such currency in small lots.

[5] Meaning, of course, simply the entire group of persons in the United States who have entered into business engagements with foreigners.

PRICE OF FOREIGN MONEY ON DIRECT SALE IN NEW YORK

	(1) Price of Bank Notes	(2) N. Y. Rate for Bankers' Sight Drafts	(3) This converted to dollars per 1 foreign unit	(4) Percentage which (1) is of (3)
Bank of England notes, per £....	$4.865	4.8725	4.8725	99.8%
Notes of Bank of France per franc	.1925	5.18⅛ less 1/16	.1929	99.7%
Notes of Reichsbank, per mark..	.2370	.95 1/16	.2378	99.6%

On the same date this firm offered 95¢ for the French 5 franc piece of silver (*i.e.*, at the rate of 19¢ per franc) and $4.84 per £ for English silver coin. The following quotations also may be noted: gold sovereigns, $4.865; gold 20 mark pieces, $4.74 ($.237 per mark); gold 20 franc pieces, $3.875 ($.19375 per franc).

In the Paris market, Jan. 27, 1912, Bank of England notes were quoted at 25.24 @ 25.26 francs per £, when sight exchange was 25.25 @ 25.28.

The New York house purchasing these foreign moneys must as a regular thing realize upon them by the simple expedient of using them as a substitute for exchange, namely by remitting them abroad and selling drafts against the proceeds.

To summarize: a commodity standard money (in a word, gold money) is exportable and importable as a part of the regular course of things. Representative moneys of paper can never be, as we chose to express it, the subjects or *final export*. Representative moneys of metal come under the same rule, unless the foreign market price of the bullion of which they are composed should rise so high that export would become profitable. Such a contingency would have to be met by the reduction of the bullion contents of the representative money by the home government.[6]

[6] Compare § 123. If the price of silver should pass above 59d. in London (the quotation being per oz. British standard silver, that is, silver .925 fine) it would pay commercially to export United

But even if this action were not taken, the export possibilities of the representative money would by no means make it a substitute for the regular standard money as a means of adjustment of international balances. In the first place, it would probably have a strong tendency to flow in one direction only, and in the second place, its availability for export would depend upon the position of the fluctuating price of the bullion of which it is made. The conclusion is that it is no part of the regular function of representative moneys to serve as articles of export and import, and as means of discharging international balances of indebtedness.

§ 123. The features of a perfected system of token money. —Not all countries have brought the administration of their token moneys into entire conformity with correct principles, but the drift of modern practice makes unmistakable what the requirements are of a perfected system of token money. The four essentials about to be indicated are those given by Professor J. L. Laughlin in his "Principles of Money."[7]

(1) Token money may be coined only on government account. (We hardly need pause to show that a system of free coinage of token money with a variable seigniorage would be impracticable.)

(2) Token coin must be made with a bullion content sufficiently small to preclude the possibility of its being

States silver dollars to be sold on the London market as bullion. Though silver was often above this price in the middle of the nineteenth century, it has not reached such a height since. The sale of the silver would be for gold money of England, against which sterling exchange would be drawn and sold in New York for American money. At a price of 59d. per oz., more than a dollar of U. S. legal tender would thus be realized on every silver dollar shipped abroad, it being assumed that sterling exchange stands at par (4.8665) in New York.

[7] Chapter XV.

melted down for sale as metal at home or abroad. Some of the noteworthy tokens of the leading nations were once standard money, and retained the weight and fineness they had in the days of their higher standing. But since the pronounced fall in the price of silver which began in 1872, none of them has been in great danger of the melting pot. Still the war-time ascent of the white metal to a dollar a fine ounce brings the bullion value of the silver dollar of the United States up to 77¢. Beneath are some statistics for this country.

Selected Years	Average Price of Silver (per fine ounce)	Bullion Value of U. S. Silver Dollar	Bullion Value of a Dollar of Subsidiary Silver *
1872	$1.32	1.022	$ .954
1875	1.24	.96	.896
1885	1.06	.82	.766
1895	.65	.50	.47
1905	.61	.47	.44
1909	.52	.40	.376
1910	.54	.418	.39
March 1919	1.01	.78	.73

* As two half-dollars, four "quarters," or ten dimes.

(3) A token money ought to be directly redeemable at its nominal value in standard money on demand. Likewise all forms of token money should be issuable on demand to any applicant who offers standard money in exchange. The method of direct redemption is the simplest and most certain for supporting parities. It provides automatically for the maintenance of the proper quantity of token moneys in circulation, for the supply of a deficiency or the withdrawal of a surplus. The government needs only to manufacture enough tokens to keep its exchange offices in a position to meet the demands made upon them by the general public. It is true, as historical evi-

dence shows, that a sufficient limitation placed upon the supply of tokens, which have once been established in commerce, will sustain their parity without the express legal right of redemption at government offices on demand. Furthermore, if a government receives its tokens freely in payments due it, and pays out standard money freely on request in payments due its creditors, this furnishes a kind of indirect redemption which unaided may serve in practice to sustain parity.[8] But the method of direct redemption is the only clear-cut and entirely safe method of managing the token (and also other representative) elements in the circulation.

(4) In the fourth place token moneys or some of them should be given a *limited legal tender* power to enable the technical legal discharge of debts involving fractional sums —such as a debt for $7.83. One reason for restricting their legal tender power to small amounts in a single payment is to prevent their employment by a spiteful debtor to pay off a large account with a great weight and bulk of metal. Another is the negative reason that there is no necessity for money serving as change to be legal tender in large sums. Again in case a token money should lose its parity it would be inequitable if any substantial debt should be dischargeable in it.

§ **124. The limping gold standard.**—The "limping gold standard" (French "etalon boiteux") is a term of fairly recent origin applied to the monetary system of a country

[8] The history of the American silver dollar since 1878 is especially instructive in this connection. It has been maintained at a parity by the method of indirect redemption. This method works provided the government does not manufacture and, through its expenditures, discharge into circulation too great a quantity of tokens. *See* A. D. Noyes, "Forty Years of American Finance," or J. L. Laughlin, "History of Bimetallism in the United States," (appropriate chapters). Not even to-day does the silver dollar of the United States have the legal right of redemption in gold.

which has associated with a gold standard money, token currency possessing unlimited legal tender power without being by express declaration of law redeemable in gold. France and the United States have been on this standard since 1873. Germany was on it from 1871 until 1907 in which year a law was passed (October 1) taking the legal tender power away from the silver thaler (or piece of three marks). The limping standard arose out of the suspension of the free coinage of silver by the three countries named (in 1871 by Germany, and in 1873 by France and the United States) without the removal, from the formerly standard silver coins, of their earlier attributes of irredeemability and full legal tender power. The essential point in the monetary system thus developed which has earned for it the appellation, "limping" standard, is that in the strict letter of the law contracts for money, including bank deposits and commercial paper, can be discharged in silver coin, and the government is not explicitly bound to redeem this coin in gold. Hence Englishmen, for instance, living in a country which had before the war a standard without a limp, a fact of which they were well aware, were inclined to say a person could not be sure that credit claims in France or the United States are just as good as gold. The French silver five-franc piece and the United States silver dollar are the coins which possess full tender power without explicit legal authority for redemption in standard gold money. France alone utilizes the possibilities contained in the limping standard for hampering gold export.[9] In the United States absolutely no use in made of these possibilities. And despite the tradition dominating all London "financial" writers, New York has been for years the freest gold market in the world—when New York banks have not suspended

[9] *See* Chapter XX, § 146, on the gold premium policy of the Bank of France.

payments for a period. Their occasional suspensions have had nothing to do with the limping standard in the United States.

While from 1890 to 1896 there was much fear at home and abroad lest our silver dollar should lose its parity with gold, this event has never happened. Still the only legal protection existing for the parity of this coin is the statutory declaration (*see* § 1, Act of March 14, 1900) that it is the policy of the United States to maintain all forms of money at parity with gold and that it shall be the duty of the Secretary of the Treasury to maintain these parities. It seems at present writing quite out of the question to develop any great alarm about the limp in the American gold standard. As already explained (§ 3), contracts calling specifically for gold cannot be discharged in silver or paper money in the United States except by consent of the creditor. A bank deposit, however, is a contract for plain "dollars" and not specifically for gold coin, and is therefore dischargeable in U. S. Treasury Notes and silver dollars as well as in gold.

CHAPTER XIX

MONETARY SYSTEMS OF THE LEADING NATIONS

§ 125. Troy and metric weight.—The legal specifications of the "standard unit of value" are laid down in troy weight in the United States and England, and in metric weight in France and Germany and the majority of other gold standard countries. According to the received historical account, the original troy pound was the weight of 7,680 grains of wheat, all taken from the middle of the ears and well dried. But the unit of weight known to-day as the troy pound is, in the United States, simply the weight of a certain piece of brass kept by the Philadelphia mint. Whatever balances exactly against this in the scales has a weight of one troy pound. This brass weight-unit is itself a copy, procured in 1827 by the minister of the United States, of a certain piece of brass formerly kept by the English government as its official troy pound. The present standard of weight in England is a certain block of platinum called the British imperial pound. This is the legal avoirdupois pound, and in England an official troy pound weight does not exist. Legally a troy pound is any weight $^{5760}/_{7000}$ or $^{144}/_{175}$ as great as the imperial pound. In the destruction of the Houses of Parliament a number of older British standards of measurement were destroyed or made useless and a new set was prepared.

The unit of weight under the metric system is the kilogram. This is the weight of a certain block of platinum and iridium kept by the International Bureau of Weights and Measures near Paris. This block was established as

the standard metric kilogram weight by the concurrent action of the chief governments of the world. Although the kilogram was in the first instance derived from the meter, or metrical unit of length,[1] the ultimate scientific definition of the kilogram is now simply the weight of this particular official block of metal. Between the troy pound and the kilogram, there is no ratio depending upon mathematical or physical law. From the standpoint of physical science the two units of weight are simply two arbitrarily selected blocks of metal, and the ratio between them can be obtained only by actual weighing of one against the other in the balance. According to the appraisal adopted by the Bank of England and by the United States mints, the kilogram has a troy equivalent of 15,432 grains (or 2 lbs. 8 oz. 3 dwt.).[2] Comparative weighing of the two standards has, however, been carried out to further decimals, giving such results as

1 kilogram = 15,432.349 grains, or again,
1 kilogram = 15,432.35639 grains.

The tables following show the fractions of units in the troy and metric systems of weight.

[1] The one-hundredth part of the meter is the centimeter. The *gram* (the original unit of weight, but now merely the one-thousandth part of the official kilogram) was first defined as the weight of 1 cubic centimeter of water at its maximum density under a pressure of one atmosphere.

[2] In connection with its bullion dealings, the Bank of England converts kilograms into troy weight at this rate. Tate's "Modern Cambist," 24th ed., 1908, by H. T. Easton, p. 59, note. For the purpose of translating the legal metric definition of United States subsidiary silver coin (*see* § 121, p. 470) into troy, the mints of this country have adopted 15.432 grains as the equivalent of a gram (the same ratio as 15,432 grains equal to one kilogram). The mint actually manufactures the subsidiary silver pieces in accordance with their translated troy weights. *See* "Instructions and Regulations for Mints and Assay Offices," 1908, Treas. Department Doc. No. 2,494.

Troy

Abbreviations: lb. = pound, oz. = ounce, dwt. = pennyweight, and gr. = grain.

1 lb. = 12 oz. = 240 dwts. = 5,760 grains.
1 oz. = 20 dwts. = 480 grains.
1 dwt. = 24 grains.

Metric

1 kilogram = 10 hectograms = 100 decagrams = 1,000 grams.
1 gram = 10 decigrams = 100 centigrams = 1,000 milligrams.

Approximate Equivalents

1 kilogram = 2.2 lbs. avoirdupois = 2.67 lbs. troy.
1 lb. avoirdupois = 1.21 lbs. troy.[3]

Official ratio in England and the United States,
1 kilogram = 15,432 grains.

§ 126. The standard units of value.—

UNITED STATES

A statute of the United States of March 14, 1900, declares (§ 1)

That the dollar consisting of twenty-five and eight-tenths grains of gold nine-tenths fine * * * shall be the standard unit of value, and all forms of money issued or coined by the United States shall be maintained at a parity of value with this standard, and it shall be the duty of the Secretary of the Treasury to maintain such parity.

The statement that the dollar of 25.8 grains shall be the standard unit of value, means that such gold coins as are struck shall contain this number of grains per dollar of their nominal or legal-tender value, and does not necessarily

[3] Troy and avoirdupois are not independent systems, as are troy and metric, or avoirdupois and metric. 1 lb. troy = 5,760 grains, and 1 lb. avoirdupois = 7,000 of the same grains, and therefore 144 lbs. avoirdupois equals exactly 175 lbs. troy.

signify that a one-dollar piece of gold shall actually be coined. In fact the one-dollar gold piece was first authorized in 1849 and discontinued in 1890. The statutory history of the gold contents of the standard unit is as follows:

Weight of the United States Gold Dollar (not always coined)

	Gross Weight	Fineness	Fine Contents
Act of April 2, 1792..	27 grains	.916⅔	24.75 grains
Act of June 28, 1834..	25.8 grains	.899225	23.2 grains
Act of Jan. 18, 1837..	25.8 grains	.900	23.22 grains

Present metric weight of the dollar 1.6718 grams (gross), 1.5046 grams (fine).

The Act of Feb. 12, 1873, dropped the silver dollar from the list of coins of the United States. The silver dollar was theretofore legally a standard coin, coördinate in this respect with the gold money of the country, and before 1873 the United States possessed a system of legal though not of actual bimetallism. In a somewhat uncertain manner, the act of 1873 put the country upon a basis of legal gold monometallism, with the same gold dollar as that provided by the act of 1837. It remained for the act of 1900 to make the adoption of the gold standard definitive.[4]

Great Britain

The pound sterling of England is a unit of $123^{17}\frac{1}{23}$ (or 123.27447) grains troy of gold $\frac{11}{12}$ fine, with a pure contents of $113\frac{1}{23}$ grains.

[4] This would seem to be a fair description of the effect of the act of 1900, in spite of the fact that it could have been made stronger if sections had been inserted providing expressly for the redemption in gold of all forms of representative money, including the silver dollar, and providing that this dollar should have only those legal tender powers which are given the "subsidiary" silver. The Secretary of the Treasury is charged with the duty of maintaining the

The English money notation is shown below.

1 pound = 20 shillings = 240 pence = 960 farthings.
1 shilling = 12 pence = 48 farthings.
1 penny = 4 farthings.

A sum of English money is commonly written in figures in the following fashion: £3. 17s. 9d. or £3. 17/9 (*i.e.,* three pounds, seventeen shillings, and nine pence, a sum which happens to be the Bank of England's legal minimum buying price for gold). £, s, and d, are abbreviations for the Latin words, *libra, solidus,* and *denarius.* Shillings may also be abbreviated as "sh."

France

The standard unit of value of France is the franc with a contents of 0.32258 grams of gold .900 fine. A number of countries in different parts of the world have adopted laws providing standard units of gold with the same weight and fineness as the French franc. But not all these countries have been so fortunate as to possess a gold standard in point of fact. A list follows.

Countries with the Same Legal Gold Unit as France

I	Name Of Unit	And its one-hundredth part
Members of the Latin Monetary Union		
France	franc	centime
Belgium	franc	centime
Switzerland	franc	centime
Italy	lire	centesimi
Greece	drachma	lepta

parity of all representative moneys, but this is not quite the equivalent of such a provision as the one just mentioned. That is, the act might have taken the country off the "limping gold standard." *See* § 124.

Countries with the Same Legal Gold Unit as France (Continued)

II	Name Of Unit	And its one-hundredth part
Other Countries		
Spain	peseta	centimo
Finland	mark	penni
Bulgaria	leva	statinki
Servia	dinar	paras
Venezuela	bolivar	centimes
Argentine Republic	1 peso of 100 centavos has exact gold contents of 5 francs (*i.e.*, 1.6129 grams .900 fine).	

GERMANY

The standard unit of value of the German Empire was established by the law of December 4, 1871, which provides that "there shall be coined an Imperial gold piece, of which 139½ shall be made from one pound of fine gold. The tenth part of this piece shall be known as the mark and shall be divided into 100 pfennigs. . . . The composition of imperial gold coin shall be 900 thousandths of gold and 100 thousandths of copper. Accordingly 125.55 ten-mark pieces shall weigh one pound. . . ." The German pound (pfund) is exactly 500 grams or one-half kilogram. Consequently 279 (*i.e.*, 2 times 139½) pieces of ten-marks, or 2,790 marks are coined from one kilogram of fine gold. This gives the mark the following weight:

	Gross Weight	Fineness	Fine Contents
Mark (gold)	.398274 grams	.900	.358422 grams

The Germans use a comma where we use a decimal point. Thus the sum written by us as 2505.32 marks appears in German as 2505,32 marks.

§ **127. Tables of mint pars.**—The chief mint pars of the world are indicated in the tables beneath.

MINT PARS OF THE UNITED STATES

		One Foreign Unit Dollars as below equals U. S.	One U. S. Dollar equals Foreign Units as below
England	pound	$4.86656	49.316 pence *
France †	franc	.19295	5.1826 francs
Germany	mark	.23821	4.1979 marks
Netherlands	florin §	.40195	2.4878 florins
Austria	crown	.20262	4.9351 crowns
Russia	ruble	.51456	1.9433 rubles
Japan	yen	.49845	2.0061 yens

* Or $1 equals £.20504 +.

† The figures are also good for the *franc* of Belgium and Switzerland, *lire* of Italy, *drachma* of Greece (not in circulation and at a premium), *peseta* of Spain, *mark* of Finland, *lei* of Roumania, and certain other coin with the same definition as the French franc.

§ The florin is also called the "guilder" and the "gulden."

MINT PARS OF GREAT BRITAIN

		One Foreign Unit Equals English Pence as below	One English Pound Equals Foreign Units as below
United States	dollar	49.316 d.	4.8665 dollars
France	franc	9.5157d.	25.22155 francs
Germany	mark	11.7477d.	20.429455 marks
Netherlands	florin	19.8230d.	12.1071186 florins
Austria	crown	9.9927d.	24.017427 crowns
Russia	ruble	25.3764d.	9.457582 rubles
Japan	yen	24.5819d.	8.763278 yens

MINT PARS OF FRANCE

		One Foreign Unit Equals Francs as below	One Franc Equals Foreign Units as below
United States	dollar	5.1826 f.	0.192952 dollars
England	pound	25.22155f.	9.5157 pence
Germany	mark	1.23456f.	0.81 marks
Netherlands	florin	2.0832 f.	0.48003 florins
Austria	crown	1.0501 f.	0.9522 crowns
Russia	ruble	2.6668 f.	0.3749 rubles
Japan	yen	2.5833 f.	0.3871 yens

Other countries possessing the same gold unit at law as France are listed on page 483.

MINT PARS OF GERMANY

		One Foreign Unit Equals Marks as below	One Mark Equals Foreign Units as below
United States	dollar	4.19792M	0.23821 dollars
England	pound	20.42945M	11.74774 pence
France	franc	0.81 M	1.23456 francs
Netherlands	florin	1.68739M	0.59263 florins
Austria	crown	0.85061M	1.17562 crowns
Russia	ruble	2.16011M	0.46293 rubles
Japan	yen	2.09247M	0.47790 yens

The mark is to the franc exactly as 100 to 81.

The data for the tables of this section may be found in the Report of the Commission on International Exchange (U. S.) on *The Gold Standard in International Trade* (1904), page 512.

§ 128. Technical detail. The United States.—

THE COINS OF THE UNITED STATES
(at present authorized to be struck, 1919)

Name	Nominal Value	Gross Weight (grains)	Fineness	Fine Contents (grains)	Fine Contents (grams)
		Gold			
Double-eagle ..	$20	516	.900	464.4	30.0926
Eagle	10	258	.900	232.2	15.0463
Half-eagle	5	129	.900	116.1	7.5231
Quarter-eagle ..	2.50	64.5	.900	58.05	3.7615
		Silver			
Half-dollar	.50	192.9	.900	173.61	
Quarter-dollar .	.25	96.45	.900	86.805	
Dime	.10	38.58	.900	34.722	
		Nickel			
"Nickel"	.05	77.16	75% copper, 25% nickel.		
		Bronze			
Cent	.01	48	95% copper, 5% tin and zinc.		
		The Silver Dollar			
Dollar	1.00	412.5	.900	371.25 grains.	

Legal tender in the United States.—In the discussion of the general nature of legal tender given in § 3, we drew our illustrations from the legal tender law of the United States, and we need add little to the latter subject in the present section. The several forms of money in circulation in the United States possess a variety of special tender powers, which are explained briefly in the quotation below.

"*Gold coin* is legal tender at its nominal or face value for all debts, public and private, when not below the standard weight and limit of tolerance prescribed by law; and when below such standard and limit of tolerance it is legal tender in proportion to its weight.

"*Standard silver dollars* are legal tender at their nominal or face value in payment of all debts, public and private, without

regard to the amount, except where otherwise expressly stipulated in the contract.

"*Subsidiary silver* is legal tender for amounts not exceeding $10 in any one payment.

"*Treasury notes of the Act of July 14, 1890,* are legal tender for all debts, public and private, except where otherwise expressly stipulated in the contract.

"*United States notes* are legal tender for all debts, public and private, except duties on imports and interest on the public debt. United States notes, upon resumption of specie payments, January 1, 1879, became acceptable in payment of duties on imports and have been freely received on that account since the above date, but the law has not been changed.

"*Gold certificates, silver certificates, and national-bank notes* are not legal tender, but both classes of certificates are receivable for all public dues, while national-bank notes are receivable for public dues except duties on imports, and may be paid out by the Government for all salaries and other debts and demands owing by the United States to individuals, corporations, and associations within the United States, except interest on the public debt and in redemption of the national currency. All national banks are required by law to receive the notes of other national banks at par.

"*The minor coins* of nickel and copper are legal tender to the extent of 25 cents." [5]

Federal Reserve Bank Notes have the same special tender powers as National Bank Notes, it being added that Federal Reserve Banks are required to receive them in payment at par (this under the statutory provision that they shall be to the "same tenor and effect as national-bank notes," § 18, Federal Reserve Act of Dec. 23, 1913).

Federal Reserve Notes "shall be receivable by all national and member banks [*i.e.*, members of the Federal Reserve banking system] and Federal reserve banks and

[5] From United States Treasury Department Circular, No. 62, "Information Respecting United States Bonds, Paper Currency," etc., July 1, 1908, p. 15.

for all taxes, customs, and other public dues." (§ 16, Federal Reserve Act of Dec. 23, 1913.)

The redemption rights of United States moneys.—The following rules governing the redemption of the several forms of money in this country are taken from "Circular No. 62" issued by the Treasury Department.[6]

"*Gold coins and standard silver dollars,* being standard coins of the United States, are not 'redeemable.'

"*Subsidiary coins* and *minor coins* may be presented, in sums or multiples of $20, to the Treasurer of the United States or to an assistant treasurer for redemption or exchange into lawful money.

"*United States notes* are redeemable in United States gold coin in any amount by the Treasurer and all the assistant treasurers of the United States.

"*Treasury notes of 1890* are redeemable in the United States gold coin in any amount by the Treasurer and all the assistant treasurers of the United States.

"*National-bank notes* are redeemable in lawful money of the United States by the Treasurer, but not by the assistant treasurers. They are also redeemable at the bank of issue. In order to provide for the redemption of its notes when presented, every national bank is required by law to keep on deposit with the Treasurer a sum equal to 5% of its circulation.

"*Gold certificates* being receipts for gold coin, are redeemable in such coin by the Treasurer and all assistant treasurers of the United States.

"*Silver certificates* are receipts for standard silver dollars deposited, and are redeemable in such dollars only.

" '*Coin' obligations* of the Government are redeemed in gold coin when gold is demanded and in silver when silver is demanded."

The treasury offices make a *practice,* however, of paying out gold on request in redeeming any form of money.

Tolerance.—Tolerance is an allowance made by law for the deviation of actual coin from its exact legal specifications. The different kinds of tolerance are here shown.

[6] As cited immediately above, p. 488.

Tolerance * { For error in minting { Error in fineness / Error in gross weight ; For abrasion (or loss of weight in circulation).

* The tolerance for error in minting is also known as the "remedy."

The tolerance for error in fineness is in this country one-thousandth for gold coin, and three-thousandths for silver.[7] That is, a gold coin might come from the mint either .901 or .899 fine and be a good coin at law. However, the instructions of the Director of the Mint state that in practice bullion should not be coined which varies outside of the limits of 899⁷⁄₁₀ and .900³⁄₁₀.[8] Thus the mints are directed to take advantage of not more than three-tenths of the maximum legal tolerance for error in fineness.

The tolerance for error in the gross weight of newly minted coin is defined in two ways. (1) When a coin is weighed by itself: For the double-eagle and the eagle the tolerance is one-half grain, and for smaller gold coins one-quarter grain.[9] (For all silver coin it is one and one-half grains for each coin.) (2) When a number of coins are weighed together: "And in weighing a number of pieces together, the deviation from the standard weight shall not exceed one-hundredth of an ounce in five thousand dollars in double-eagles, eagles, half-eagles, or quarter-eagles, in one thousand three-dollar pieces, and in one thousand one-dollar pieces."[10] The following table of tolerances is self-explanatory.

[7] Revised Statutes of the U. S., § 3533.

[8] "General Instructions and Regulations," etc. (before cited), Art. 22, § 2, p. 25.

[9] Revised Statutes of the U. S., § 3,535.

[10] R. S., § 3535. The three-dollar and one-dollar pieces are no longer coined.

TOLERANCE IN GROSS WEIGHT OF NEW GOLD COIN [11]

Denominations of coins	Standard or legal weight Grains	Tolerance allowed by law on individual pieces Grains	Minimum legal weight of new coins Grains
Double-eagle	516.0	0.50	515.50
Eagle	258.0	.50	257.50
Half-eagle	129.0	.25	128.75
Quarter-eagle	64.5	.25	64.25

The tolerance for abrasion in circulation.—The law provides that a gold coin may suffer a loss of weight by natural abrasion at the rate of one-half per cent. in twenty years, the total abrasion not to exceed one-half per cent. Thus a coin one year old must not show an abrasion in excess of one-fortieth per cent., one five years old not in excess of one-eighth per cent., and so on. The effect of excessive abrasion is to make a coin cease to be legal tender at its "full" or "nominal" value, although it retains legal tender power in proportion to its actual weight.[12] The "least current weights" of our present gold coins are indicated in the following table.

LEAST CURRENT WEIGHTS U. S. GOLD COINS [13]

Denominations of coins	Standard or legal weight Grains	One-half per cent. abrasion after 20 years' wear Grains	Least current weight after 20 years' wear Grains	Annual abrasion within legal limit Grains	Actual coefficient of annual abrasion from experiments Grains
Double-eagle	516.0	2.58	513.42	0.129	0 0860
Eagle	258.0	1.29	256.71	.0645	.0430
Half-eagle	129.0	.645	128.355	.0322	.0215
Quarter-eagle	64.5	.322	64.178	.0161	.0107

11 From "General Instructions and Regulations," etc. (before cited), p. 22.

12 Revised Statutes, § 3585.

13 From "General Instructions and Regulations," etc. (before cited), p. 22.

§ 129. Technical detail. England.—

THE COINS OF ENGLAND

Gold

Denomination	Gross Weight (grains)	Fineness in thousandths	Fine Gold (grains)	Fine Gold (metric grams)	Mint Parity in U. S. Dollars
Five-pound	616.37239	.916⅔	565.0079	36.6116	$24.3328
Two-pound	246.54895	.916⅔	226.0031	14.6447	9.7331
Sovereign (£1)	123.27447	.916⅔	113.0015	7.3223	4.8665
Half-sovereign (10s.)	61.63723	.916⅔	56.5007	3.6611	2.4332

(There are virtually no £5 and £2 coins in circulation.)

Silver

Denominations	Gross weight (grains)	Fineness	Fine Contents (grains)
Crown (5s.)	436.36	.925	403.63
Half-crown (2½s.)	218.18	.925	201.81
Florin (2s.)	174.54	.925	161.45
Shilling	87.27	.925	80.72
Sixpence	43.63	.925	40.36
Threepence	21.81	.925	20.18

Bronze

	Gross Weight (grains)	Alloy
Penny	145.83	95% copper, 4% tin, 1% zinc
Half-penny	87.50	
Farthing	43.75	

PAPER MONEY IN GREAT BRITAIN

Bank of England Notes (in denominations of £5, 10, 20, 50, 100, 200, 500, and 1,000) were prior to the war the only legal tender paper money of England. The Bank of England is divided into two distinct parts known as the Banking Department and the Issue Department. The latter has sole charge of the issue and redemption of Bank of England notes, and this is its only function. On March 6, 1912, there were £56,092,145 of notes

outstanding and the Issue Department possessed exactly £56,092,145 of assets to cover them. It is generally assumed that these assets are specially pledged for the payment of notes alone, but the law is not really explicit on this point, and Mr. George Clare states, "good authority" has held that should the bank fail, the assets of the Issue Department would become a part of the general fund of resources against which depositors and note-holders would have merely equal claims.[14] The assets held by the Issue Department fall into two parts: (1) gold coin and bullion (amounting to £37,642,145 on March 6, 1912) and (2) British government debt and other securities (amounting to £18,450,000). In consequence the entire circulation of the Bank is thought of as divided into the two parts known as the "covered" and the "uncovered issue." Thus on Feb. 12, 1919, the issue was constituted as follows:

Covered Issue	£80,570,795
Uncovered Issue	18,450,000
Entire circulation	£99,020,795

The uncovered issue is not without backing but is "uncovered" *so far as specie is concerned.* Under the law, the uncovered issue of the Bank cannot be increased except by the addition to it of two-thirds of any issue rights which may in the future be surrendered by those "country banks" which still possess a circulation. (*See* "Notes of Other Banks" hereunder.) The maximum to which the uncovered issue can ever attain under this provision is £19,616,000.

Except for this, the uncovered issue of the Bank is an unchanging quantity. The fluctuations in the total outstanding circulation take place solely in the shape of the expansion of contraction of the covered part of the issue. Notes are regularly paid out by the Issue Department only in exchange for gold, and they are retired only upon redemption in gold. Since the covered notes to-day constitute two-thirds of the

[14] "A Money Market Primer," 2d. ed., 1903, p. 17. Mr. Clare says by way of comfort, "though interesting in theory, the question is, of course, of no practical importance."

whole issue, and since the retirement of notes by the public in such volume as to reach the uncovered part is almost unthinkable,[15] the Bank of England note is in its practical aspects a gold certificate. Suppose the United States government had $800,000,000 of gold certificates outstanding, and should with the consent of their holders remove about $300,000,000 of the gold carried in the special reserve, and substitute an equal amount of its own bonds payable in gold. This would make the gold certificate very similar to the Bank of England note as it is to-day. The law permits the Issue Department to include in the specie held to cover notes, a one-fifth proportion of silver coin, but the Bank has long since ceased to avail itself of this privilege. The *Banking* Department keeps its own separate cash reserve chiefly in the shape of the notes of the Issue Department. It has to give up gold to obtain these notes and holds them instead of gold only as a matter of convenience. On March 6, 1912, the Banking Department held £27,839,000 of notes as cash, and there were therefore but £28,253,000 of notes held by the outside public. In many cases the figure given by statisticians as "the circulation" of the Bank is merely the figure for the notes held by the outside public.

Notes of Other English Banks.—A number of banks located in England and Wales have the right to issue circulating notes, but the total of their issue is at present subject to an absolute maximum limit of £1,166,000. These notes have no legal tender power and have, in fact, only local currency. Whenever one of these so-called "country banks" goes out of existence or otherwise gives up its issue rights, these rights disappear never to be revived as such. The law provides that ⅔ of such lapsed rights may be added to the Bank of England's "uncovered" issue, that is, issue to be covered by securities. The present law (the Peel Act) governing the circulation of

[15] At none of the times when the Bank of England has been in difficulties, since the separation of the Issue and Banking Departments, has there been the slightest suspicion of the notes on the part of the public. There has never been such a thing as a run on the Issue Department.

notes in England and Wales was passed in 1844. Since 1844 the uncovered issue of the Bank of England has grown from £14,000,000 to £18,450,000. The law was designed with a view to the ultimate extinguishment of the country bank issues.

Scotch and Irish Bank Notes.—Several banks in Scotland and several in Ireland issue notes which circulate freely in their respective countries, but which are at a discount of 1d. per pound in dealings between banks in London. These notes have no legal tender power.

English Government Currency Notes.—The act of the 6th of August, 1914, authorized the English Treasury to issue circulating notes (in denominations of £1 and of 10s.) known as Currency Notes, which have unlimited legal tender power and are redeemable in gold coin on demand at the Bank of England, where the Treasury is to keep funds for the purpose. This new element of English paper money was created just after the country entered the great war, obviously under the stress of that event. Probably it will be done away with in time, but in February, 1919, there were outstanding over £300,000,000 of these notes (and certificates representing them). The purpose of the issue was to enable the government to make advances to the banks. The government was secured by taking a floating prior lien on all the assets of the banks receiving the advances. It charged for the accommodation at the Bank of England rate. The conferring of the full legal tender power upon the notes made them so much the more appropriate as an emergency currency for the discharge of debts throughout the frightened business community.

LEGAL TENDER IN ENGLAND [16]

Standard gold coin has unlimited legal tender power in the entire United Kingdom.

[16] "For the purpose of meeting immediate exigencies" postal orders were made legal tender in the United Kingdom by the act of August 6th, 1914, until the removal of this power by proclamation. In a similar manner the act made bank notes issued in Scotland and Ire-

Silver coin is legal tender in the United Kingdom up to the amount of 40 shillings in a single payment.

Bronze coin. Pence and half-pence are legal tender in single payments not to exceed 1 shilling, and farthings in payments not to exceed 6d.

Bank of England Notes are legal tender in unlimited amounts in England and Wales but not legal tender in Scotland or Ireland. These notes are not legal tender "at the Bank of England itself," which means practically, not legal tender when offered by this institution to its creditors.

Currency Notes have unlimited legal tender power throughout the United Kingdom.

TOLERANCE

The tolerance for error in fineness, allowed the mint for gold coin, is $\frac{2}{1000}$. That is, gold coin may vary from .914⅔ to .918⅔. *For error in gross weight it* is $\frac{16}{100}$ of 1%. *For loss of weight in circulation,* the sovereign, having a legal weight of 123.27447 grains, may in consequence of abrasion fall to 122.5 grains without losing its legal tender power. Sovereigns below this weight are not legal currency, but light gold coins are now receivable by the Bank of England for the account of the Mint, at their full nominal value,[17] the cost of supplying the losses due to abrasion being shifted to the government, with whom it belongs. (The half-sovereign with a legal weight of 61.63723 grains has a least current weight of 61.5 grains.) The permissible abrasion in the sovereign is then about ¾ of a grain (a loss of 6⅝ parts in 1,000). The Bank of England rarely delivers sovereigns which have a deficiency of more than 2½ parts in 1,000, weighed in bulk.[18]

land legal tender in Scotland and Ireland respectively until revocation by proclamation. The text of this act may be found in one of the appendices to Hartley Withers' "War and Lombard Street."

[17] Deutsch, "Arbitrage," London (1904), p. 18.

[18] Tates, "Modern Cambist" (as already cited), p. 14.

§ 130. The Mint price of gold in the United States.—

STANDARD BULLION

The standard bullion of the United States is 900 parts of fine gold to the 1,000. The 100 parts not gold, called in this connection the alloy, may consist wholly of copper, but a proportion of silver equal to 1/10 of the alloy is permitted by law. Silver will be left in only in cases where it is present in such small quantities that it does not pay to refine it out. Such silver as remains in the bullion, though by nature a valuable metal, has no effect upon the value of the bullion, except that its presence saves the use of an equal weight of copper which is a negligible matter. This silver is like silver in the moon, or too far under ground to be worth anything.[19]

The price of standard gold bullion in the United States is $18.60465 per ounce troy, without deduction or charge.

This is computed in the following manner:

Data. The statutes provide

1. That 25.8 grains of standard gold shall constitute a dollar, and
2. That the depositor of such metal at the mint shall be entitled to receive back all the coin it will make, without charge.

An ounce, or 480 grains, of standard gold will make 18.60465 dollars.

$$480 \div 25.8 = 18.60465$$

[19] In practice the presence of very small quantities of impurities in standard bullion has to be tolerated by the mint, if they are not injurious to the coining machinery, but the fine gold, to which copper is added to produce standard bullion, is usually run up above .999 in fineness.

The mint price for standard gold bullion is also sometimes expressed as

$800 for 43 ounces.

If the mint gives $1 for 25.8 grains, it will give $800 for 800×25.8, or 20,640 grains, and this happens to be exactly 43 ounces troy.

Non-Standard Bullion

The mint price for non-standard gold bullion is in the United States

$20.67183 per ounce of fine contents, less charges.

This is best expressed by saying that the *basic* price for non-standard gold bullion is $20.67183 per ounce of pure gold contents. The computation of this price was explained in § 109. In no case does the depositor of non-standard bullion receive payment for its fine contents at the full rate of $20.67183 per ounce, because there is always some charge to cover the cost of standardizing. This statement applies even to bars of fine gold, or of "mint fine" gold, the latter signifying gold containing such trifling impurities that the mint does not demand their elimination. These impurities count of course only as an unavoidable evil. They go along with the gold but do not count as gold in the weighing.

The charges to which non-standard bullion may be subject are four in number, as follows.

(1) *A melting charge* of the exceedingly small amount of $1 per 1,000 ounces of bullion. Deposits of uncurrent U. S. gold coin and of "mint-fine" bars are exempt from this charge.

(2) *A parting and refining charge* varying from ½ cent to 4 cents per ounce gross weight of the deposited bullion. The mints accept bullion not below .200 fineness in gold, if suf-

ficiently homogeneous for assay, except that bullion containing arsenic or other elements objectionable in treatment may be rejected. The parting and refining charges vary according to the percentage of gold in the bullion and according to the character of its other constituents. These charges are fixed by the Director of the Mint.[20] Exempt from the parting and refining charges are (1) foreign coin of our standard of fineness or above, and (2) bullion containing .992 thousandths of gold and upwards, which does not contain substances (such as iron, lead, tin, etc.) which must be refined out before coining. The latter bullion may contain silver or copper. *Silver contained in gold deposits* is paid for by the government at a rate fixed from time to time by the Director of the Mint, with the approval of the Secretary of the Treasury. This rate follows the current market quotations. But where the silver constitutes no more than .008 of the bullion no accounting is made for it, since it is in practice utilized simply as a part of the alloy.[21]

(3) *A toughening charge* equal to the cost to the government of the necessary treatment of the bullion, is exacted whenever the deposited bullion contains certain elements which must come out in order to make assay and coining feasible.

(4) *A charge for copper alloy* is levied upon all bullion to which copper must be added to bring it to the standard. This charge of 2¢ per ounce of copper actually required.

The mints of the United States receive for coinage bullion of a great variety of degrees of fineness. It is not

[20] At present writing the latest schedule of the mint's charges was the one published March 27, 1911, to take effect May 1, 1911. (Leaflet, U. S. Mint Service, Form 92.)

[21] If it paid to refine out (or make a "parting" of) so small a proportion of silver, this would of course be done. The silver could be replaced by copper. But silver appearing in quantities too small for profitable extraction is commercially unavailable. It has no value and does not affect the value of the bullion otherwise than by saving a little of the charge for copper. It is like good silver, say, so deep under the ground as to be worthless.

our endeavor to go exhaustively into the technical subject of the appraisal of the coining value and purchase price of such metal, but it will be well to consider an example or two. Suppose that 10,000 ounces of British sovereigns (coins of £1 each) are offered an American mint. How will the amount payable to the depositor of this gold be computed?

SALE OF 10,000 OUNCES OF BRITISH SOVEREIGNS TO THE UNITED STATES MINT [22]

When melted and assayed this gold shows, say, a fineness of .9165 (which is just a shade under the legal fineness and well within the limit of tolerance allowed the English mint).

10,000 ounces contain therefore .....9,165 oz. fine gold.

9,165 ounces at the basic price of $20.67183 are valued at $189,457.32

(i.e., 9,165 × 20.67183)

The following charges are levied:

Melting charge. (1 per 1,000 oz.).....	$10.00	
Parting and refining (none for this kind of deposit)		
Toughening (none)		
Charge for extra copper at 2c an ounce...	3.67	
Total charge		$13.67
Mint's net price for the 10,000 oz.		$189,443.65

CALCULATION OF THE CHARGE FOR COPPER

British coin has 11/12ths alloy as against 9/10ths alloy in the United States standard gold, therefore copper must be added to British standard gold to bring it to the U. S. standard.

The copper in U. S. standard gold weighs 100/900ths or 1/9th as much as fine gold.

[22] 10,000 ounces would be £38,938 of coin extremely close to full weight.

Therefore 9,165 oz. of fine gold
will make 9,165 + 1/9th of
9,165 or 10,183⅓ ounces of standard gold.
The British gold weighs 10,000 ounces
It lacks of copper 183⅓ ounces to make it 9/10ths fine.
183⅓ ounces @ 2¢ = $3.67 the charge for additional alloy.

Consider for a second example a

SALE OF 10,000 OUNCES OF MINT FINE BARS
ASSAYING AT .9995

Fine contents	9,995 oz.
Basic price, 9,995 × 20.67183	$206,614.94
Charge for copper	22.10
Paid by mint	$206,592.84

THE CHARGE FOR COPPER

Standard gold being 9 parts gold and 1 part alloy, the alloy equals 1/9th in weight of the fine gold.	
The alloy must be 1/9th of 9,995 ounces or	1,110.55 oz.
Of this the 5 ounces of impurity form a part, leaving copper to be added	1,105.55 oz.
This will cost, at 2¢ an ounce	$22.10

The law does not require the mints to accept deposits of gold bullion of less than $100 in value, but in actual practice they buy all offered that is sufficiently homogeneous to allow the value to be readily ascertained. Bullion is sometimes rejected for containing arsenic and other objectionable elements, but the American mints will receive bullion containing iridium. The mint must take this metal out to avoid damage to dies. It does so but makes no allowance to the depositor for the value of the iridium itself.

Bullion is paid for in full as soon as its value is determined. The Superintendent of the Mint may, in his discretion, make immediate advances on deposits by well known

firms before the determination of the precise value, such advances not to exceed 90% of the estimated value. Payments to depositors are made in various ways. The New York Assay Office always pays by draft on the Assistant Treasurer in New York, whose office is next door. The Philadelphia mint pays in gold coin over the counter. The San Francisco mint pays in coin over the counter, or by draft on the San Francisco Assistant Treasurer, or by draft on the New York Assistant Treasurer.[23]

The sale and exchange of gold bars by the mints.— Under the authority of the Act of March 3, 1891, the Philadelphia and San Francisco mints and the New York Assay Office sell mint fine bars to the public for gold coin at the price of $20.67183 per ounce of fine contents, plus a charge of 40¢ to the $1,000 worth, to cover the immediate cost of manufacture. These bars are a favorite form of gold for export, but large quantities are also bought for use in the industrial arts within the country. Under the statute the mints are not bound to make these sales, but are permitted to do so with the approval of the Secretary of the Treasury. The smallest sale permitted is one for $5,000.

§ 131. The mint and bank price of gold in England.— The mint price of gold in England is

£3 17s. 10½d. per ounce .916⅔ fine.

The English law provides for gratuitous coinage of standard bullion. According to the legal weight of the sovereign, 934½ of these coins can be made from 20 pounds troy of standard bullion,[24] or 1,869 can be made from 40 pounds. The consequence is that the mint price for standard gold

[23] For many points in this section the writer is indebted to the kindness of Mr. George E. Roberts, former Director of the Mint of the United States.

[24] The *earlier* English monetary statutes defined the sovereign merely by providing that 934½ should be coined from 20 lbs. Troy of standard gold.

is £3 17s. 10½d. per ounce. This figure results from the calculation given below.

40 pounds troy =480 ounces
480 ounces =£1,869 (*i.e.*—makes 1,869 sovereigns).
1 ounce =$\frac{1}{480}$ of £1,869.
Divide 480 into £1,869

This may be done so as to yield pounds and a decimal fraction of a pound, and the latter converted into s. and d.; or the following method may be pursued.

480) 1,869 pounds (*3 pounds*
1,440

429 pounds left over
20 (number of shillings to a pound)

480) 8,580 *shillings left over* (*17 shillings*
480

3,780
3,360

420 shillings left over
12 (pence to a shilling)

840
420

480) 5,040 *pence left over* (*10.5 pence*
480

2,400
2,400

Answer £3 17s. 10½d.

The terms on which the mint will pay this price to the depositors of gold bullion, are (1) the coin is returnable to the depositor only after the period required for actual coinage, two to three weeks, and (2) no deposit is received of a value of less than £10,000.

The Bank of England's Buying Price for Gold.—In practice all gold bullion which the owners desire to convert into British legal tender is sold to the Bank of England instead of the mint. The Bank then has coin struck from time to time according to its needs. In practice the Bank of England has become the sole depositor at the mint proper.

The minimum buying price of the Bank of England for an ounce of gold 11½ths fine is .....£3 17s. 9d.

The Act of 1844 compels the Bank to exchange its notes for standard gold bullion at the rate of £3–17–9 per standard ounce. Since notes are redeemable in gold coin on demand at the Bank itself, any one can procure coin for bullion at the Bank without resort to the mint. Uncoined bars in the possession of the Bank count as legal reserve against its outstanding notes, and it is for this reason that the institution does not need to have all the bars which it buys converted into actual coin.

While the Bank may raise its buying price for gold as far above £3 17s. 9d. as it sees fit, in point of fact for reasons to be explained presently, it could never while itself maintaining specie payments have a motive for offering at the utmost more than £3 18s. 0½d. According to information kindly furnished the writer by Mr. J. E. Nairne, Chief Cashier of the Bank, the highest recorded price paid by this institution for bars is £3 17s. 10½d. The letter containing this information was written before the war, but so far as the writer knows the Bank has not in later times made offers above this figure.

Terms upon which the Bank buys gold bullion.[25]—(1) The metal must be melted into bars of approximately 400 ounces in weight and of a designated shape. A charge at the rate of ¼d. per ounce is made for the services of the

[25] According to Tate's "Modern Cambist," 24th edition, 1908, pp. 15 and 16.

melters officially recognized by the Bank. The Bank does not buy a smaller quantity than 400 ounces. (2) The Bank makes no stipulation as to the fineness of the bars but it is rare for gold under the British standard of .916⅔ to be offered. The detection in a bar of iridium or any other substance making it unsuitable for coinage, would lead to its rejection. The private refineries charge ¼d. per ounce for taking iridium out, and its presence in gold usually leads to the sale of the latter to some refiner at a price reduced by ¼d. per ounce. (3) The gold must be subjected to a triple test by the Bank's official assayers, at an expense to the seller of about 4s. 6d. per bar. The amount of standard gold contained in a bar, and hence its price, is determined on the basis of these assays. American and other foreign bars, the fineness of which has already been determined abroad, may be taken by the Bank without further assay from sellers of recognized standing. The seller is in such cases, however, required to give a kind of bond of indemnity against the possible discovery of error in the indicated fineness. (4) The Bank weighs gold in ounces and decimal fractions of ounces (instead of in grains) and does not take into account smaller fractions than .025 (or 1/40 of an ounce). (5) The Bank price is (unlike the mint price) payable cash down, as soon as the value of the deposited gold is established. A comparison shows that

the Mint price is	£3 17s. 10½d., and
the Bank minimum price is	£3 17s. 9
the difference is	1½d. per oz.

When going to the mint, the Bank will, as already explained, have to wait for the coining to be finished before receiving back sovereigns. The difference between its legal minimum price and the mint price is usually accounted for

as being an allowance of interest to the Bank as compensation for the average period of this delay. 1½d. is almost exactly 3% interest on £3 17s. 9d. for 20 days.

In contrast with the American mints, the British mint bears the cost of any copper alloy which may need to be added to a bar to bring it to standard fineness for coinage. Therefore when bullion with a fineness above the standard contains no impurities that must be removed and differs from the standard only by the lack of a certain amount of copper, it is evaluated by the Bank as being worth the same as the amount of standard bullion which can be made from it. Thus a bar weighing 399.5 ounces .998 fine, would be worth £1,690 17s. 0.6s. computed as follows:

399.5 ounces .998 fine (contain 399.5 × .998 ounces of pure gold) = 398.701 ounces pure.
The alloy in standard bullion, being 1/12 of the whole, is 1/11 of the pure gold contents (*i.e.*, 1/12 is 1/11 of 11/12). Therefore 1 ounce of fine gold will make 1 1/11 ounces of standard gold.
398.701 × 1 1/11 = 434.946 standard ounces.
434.946 ounces @ £3 17s. 9d. per ounce = £1,690 17s 6/10d.

The Bank's price for foreign gold coin.—Without legal compulsion, the Bank both buys and sells foreign gold coin. A price quoted for coin is one payable for the ounce of gross weight without melting and assay. The Bank alters its prices for this form of gold as it sees fit, but there are certain fairly obvious limits beyond which neither its buying nor selling prices may go. Those who sell gold coin to the Bank always possess the option of melting it, refining it if under .916⅔, paying certain minor expenses, and selling it at least at the minimum rate of £3 17s. 9d. per ounce of standard contents. Consequently no one would be likely to take much less than £3 16s. 3½d. per ounce for American, German, French or other gold coin

which is supposed to be .900 fine. For, disregarding minor expenses, when bullion .916⅔ fine is worth £3 17s. 9d., that which is exactly .900 fine is worth just £3 16s. 4⅘d. Coin of the United States, Germany, or France, will show an average actual fineness very little under .900, and the Bank's lowest buying price for such gold is in fact £3 16s. 3½d. The Bank no longer publishes a fixed buying or selling price for foreign coin but it is open to offers the acceptance of which depends upon the circumstances of the moment. Unofficial information indicates that the buying price ranges between the lower limit just stated and an upper limit of about £3 16s. 7d., the latter figure corresponding closely to a price for standard bars of £3 18s.

In selling foreign coin .900 fine (generally of course for export), it is supposed the Bank usually asks about £3 16s. 7d. per ounce. It is also prepared to sell bars, but in ordinary times the amount sold is small. The price is a matter of adjustment, but the Bank has sold bars as high as £3 18s. 1d. per standard ounce. The last occasion on which bars were sold in any considerable quantity was during the American crisis of 1907.

132. The London market price for bar gold and its limits.—

Lower limit .....£3 17s. 9d.
Upper limit, about .....£3 18s. 1d.

Much of the newly mined gold of the world finds its way directly or almost directly to London, which has had for many years past the greatest of all markets for the yellow metal. Often the fresh supply goes to the Bank of England at the latter's legal minimum buying price. In these cases there has been nothing better to do with it than to convert it into English sovereigns. But in many instances buyers in the open market, as the saying goes, bid higher for it and carry it off. These are mainly foreign buyers,

many of them acting for continental European banks.[26] There is then an open market for gold metal, and in this market demand is sometimes brisk, sometimes dull, and the price is a variable. But it varies only to a trifling extent, and we have already learned enough to realize that gold is no ordinary market commodity. The lower limit of the price in London is £3 17s. 9d. per standard ounce (11/12 fine), this being the Bank's minimum buying price, and the very topmost limit appears to be about £3 18s. 1d. Meanwhile the mint price proper is £3 17s. 10½d.

We must keep clearly in mind that an offer to buy gold bullion at a price is an offer of money for the metal, and that so long as England is on the gold standard it is an offer of gold money for gold metal. Doubtless payments for gold metal are made by check quite as payments for tin or zinc, but a check on a London bank is convertible into British legal tender on demand and under the assumption stated this will be either gold coin itself or paper moneys convertible into gold coin.

Now if the British mint paid the full coining value for gold on the moment of its deposit, or at least on the moment when this value is determined, and if all gold coin procurable for bank credit and paper money were of absolutely full legal weight, there could be *no* variation in the market price for gold metal. An ounce of metal, standard metal, of course, and £3 17s. 10½d. would be interchangeable things. No seller would take less than this, the mint price, and no buyer would give better than a shade more, because the very £3 17s. 10½d. of coin that he offers contains an ounce of standard gold. It is understood we are speaking of wholesale dealings.

The lower limit of the market price is underneath the mint price for the primary reason that the price at the

[26] It goes without saying these observations do not apply to the period of the war.

mint cannot be obtained without waiting about three weeks after making the deposit of the metal. The Bank's legal minimum spot-cash price is therefore attractive as compared with the mint price and thus comes to set the practical minimum for the market.

The upper limit exceeds the mint price for the reason that the average weight of actual sovereigns which still have the legal tender power at their full nominal rating is something under the full legal weight. At this point we see the relation of "tolerance" [27] to the open market price for gold bars. So far as the tolerance laws are effective in setting the limits below which the pure contents of the gold coin of actual circulation will not fall, they serve to set a limit beyond which the price of bullion cannot rise. It is however the average actual deficiency in the weight of coin which in fact establishes the upper limit for the price of bullion. If, for instance, the sovereigns delivered by the Bank of England in the redemption of notes should never show a deficiency in pure contents greater than 2½ parts in 1,000, or ¼ of 1%, the market price for bullion could not ascend to an appreciable extent above £3 18s. 0½d. If sovereigns are of full weight, they weigh 1 ounce to each £3 17s. 10½d. of nominal value. If they are short in weight by ¼ of 1%, it will take (a little more than) ¼ of 1% more nominal value of sovereigns to weigh an ounce. ¼ of 1% of £3 17s. 10½d. is a little over 2d., and £3 17s. 10½d. plus 2d. makes £3 18s. 0½d. This is, in fact, within ½d. of the highest price for bar gold ever experienced in the London market.

133. The mint and bank price of gold in France.—The weight of the franc has already been given as 0.32258 grams of gold .900 fine. This, however, is not the precise legal definition of the franc, but is a consequence of it. The law of March 28, 1803, laid down the specifications of the

[27] Compare § 129, p. 496.

gold franc by providing that 3,100 francs should be coined from 1 kilogram of gold .900 fine.[28] Therefore the mint price of 1 kilogram of standard gold would be 3,100 francs were it not for the fact that the mint makes a seigniorage or brassage charge of 6.70 francs per kilogram. (This is a charge of a little more than $\frac{1}{5}$ of 1%.)

1 kilogram of gold .900 fine will make, or has a coining value of ..... 3,100. francs.
The mint's charge for coining 1 kilogram is ..... 6.70 francs.

The mint price (per kg. standard gold) is ..... 3,093.30 francs.

When *fine* gold is sold the mint, the latter makes no charge for the copper which must be added to bring the gold to the legal standard, or rather, the charge of 6.70 francs per kilogram for *coining* also includes the charge for *standardizing* refined gold. Since $\frac{9}{10}$ of a kilogram of fine gold makes (with copper) 1 kilogram of standard gold, the coining value and mint price for 1 *standard* kilogram, as given above, are the coining value and mint price of $\frac{9}{10}$ of a kilogram of *fine* gold. Thus the following figures result:

1 kilogram of fine gold has

a coining value of	3,444.44 francs ($\frac{10}{9}\times$3,100)
a mint price of	3,437. francs ($\frac{10}{9}\times$3,093.30)

The price of gold at the Bank of France.—The Bank of France buys gold bullion through its main office in Paris, at the mint price. The following conditions govern its purchases.[29] First with respect to *gold bars:* These

[28] This law also provided that 200 francs of silver coin should be struck from 1 kilogram of silver .900 fine. The ratio of 3100:200 or 15½:1, thus established between gold and silver, became known as the "French bimetallic ratio," since from 1801 to 1873 both gold and silver possessed the right of free coinage.

[29] As given in Swoboda's "Die Arbitrage," 13th ed., 1909, edited by Max Fürst, pp. 418–21.

must be at least .996 fine (unless they are legal standard bullion [30]) and must contain no iridium, platinum, arsenic, or other impurity which renders the bullion unsuitable for coinage.[31] Each bar must weigh at least 6 kilograms (but must not exceed 13 kilograms [32]), and must be accompanied by certificates of weight and fineness, one from one of the two official assayers of the Bank and one from some outside assayer. The former certificate costs $^{15}/_{1000}$ of 1% of the value of the bar, the latter 1 franc per bar. With respect to *foreign gold coin:* The Bank buys gold in this form without requiring it to be cast into bars and assayed. The gross weight of the deposit of coin is first ascertained, and then the fine contents are calculated according to a tariff of fineness which the Bank publishes and alters as it desires. For example, according to this tariff,[32]

20-Mark pieces are reckoned as	.8992 fine
Sovereigns	.9164
Eagles	.8992
Gold coin of Austria, Holland, Scandinavia, and Japan	.8992

Thus the Bank counts foreign coin as being of a somewhat lower fineness than its exact legal standard. If the Bank should go too far in making this tariff unfavorable, the owner of the coin could pay the expenses of the melting and refining, and then could sell his gold as fine bars at the fixed legal price. The following is self-explanatory:

[30] Cf. E. Kauffmann, "Banknotes, Monnaies et Arbitrages," p. 358.

[31] The chief forms in which gold appears in regular international shipments to-day are coin and "fine" bars. The latter are usually as high or higher than .999 in fineness, and free from injurious impurities.

[32] Given at p. 419 in Swoboda (as already cited).

SALE OF 10,000 EAGLES TO THE BANK

10,000 Eagles should weigh at 25.8 grains per dollar	2,580,000 grains
2,580,000 grains, at 15,432 grains per kilogram, equal	167.185 kilograms
Allowing say 1/10 of 1% weight shortage, this lot of eagles should weigh	167.018 kilograms
167.018 kilograms reckoned as .8992 fine would have a fine contents of	150.183 kilograms
150.183 kilograms at 3,437 francs per kilogram, are worth	516,178.97 Francs

10,000 eagles are $100,000. If $100,000 of American gold coin produces 516,178.97 francs, $1 produces 5.16^{18}⁄$_{100}$ francs. By referring to the table on page 485 we see that the mint par between the United States and France is $1 = 5.18$^{26}⁄$_{100}$ francs. Therefore in case of actual shipment and sale of American gold coin for French money, the proceeds per dollar turn out to be about 2 centimes under the mint par. This loss is accounted for by three factors, namely, (1) the charge of 6.70 francs per standard kilogram levied by the French mint for converting any gold into French coin, (2) the reduction of the rated fineness of American coin to .8992 in the tariff of the Bank of France, (this signifying a loss of 8/10 of one one-thousandth from the .900 of fineness assumed in calculating a mint par[33]), and (3) the loss in the weight of gold consequent (chiefly) upon taking abraded coin from circulation.

The Bank's Terms of Payment for Gold.—The Bank of France buys gold only in large lots. As soon as the value of a lot, bars, or foreign coin, has been determined, and the gold is delivered over the counters of the Bank, the institution will make an immediate payment of 95% of

[33] *See* the definition of mint part, p. 432.

the value of the deposit on account. The Bank treats this partial payment as an "advance" inasmuch as it itself will have to wait until the bullion has been coined at the mint before it receives back the coin which the metal will make. On the actual date when the mint delivers up this coin the advance is regarded as terminating, and the remaining 5% due the original depositors of the bullion or foreign coin is then paid him. But the Bank charges the latter interest for the advance it has made him, practically always at the very low rate of 1% per annum. This interest is collected under the following rules. At the time of the prepayment of the 95%, the Bank withholds interest on this sum for 36 days, or 1/10 of a year, making the deduction thus regularly 1/10 of 1%. Then when the advance terminates and the remaining 5% of the principal amount is paid, an adjustment is made so that the depositor's real interest payment will be only for the period that has turned out to be the actual time of the advance.[34]

§ 134. **The mint and bank price of gold in Germany.**[35] — Since the German law provides that 139½ ten-mark pieces shall be coined from 1 pound (*i.e.*—one-half kilogram) of fine gold, the coining value of the kilogram becomes 2,790 Marks. The German law fixes a charge for coining, of 3 Marks per pound of fine gold, or 6 Marks per kilogram. Consequently we obtain the following:

Coining value of 1 kilogram fine gold	2,790 Marks
Seigniorage or brassage charge per kilogram	6
Mint Price of Gold, per fine kilogram	2,784 Marks

The mint price for standard gold is simply 9/10 of 2,784,

[34] Compare Swoboda, "Die Arbitrage" (as already cited) p. 421, and Kauffmann's, "Banknotes," etc., p. 359.

[35] The information given in this section applies to conditions in Germany prior to the great war.

or 2505.60 per kilogram.[36] The mint does not pay the depositor the value of his bullion in money until the time actually required for coinage elapses. To be receivable by the mint, bars must have a minimum weight of 5 pounds (2½ kilograms) and be of a minimum fineness of .900, except that when a number of bars are offered in a single deposit it suffices for them to have an average fineness of .900. The charge for assaying is 3 Marks per bar. When non-standard bars can be made suitable for coining by the mere addition of copper, the mint price for the pure gold contents of these bars is calculated at the full rate of 2,784 M per kilogram. (That is, no charge is made for copper, outside of the "coining charge" of 6 Marks per kilogram.)

The price of gold at the Reichsbank.[37] *Gold Bars.*— The Reichsbank buys gold bars on the following terms. (1) The bars must weigh at least 2½ kilograms each, and must possess an average fineness of at least .900. (2) The fineness must be tested two times at an official assay office; charges 3 M. per bar for the two tests. (3) When the value of the gold is thus established, the Bank pays for it cash down the price of 2,784 M. per fine kilogram. (4) Bars with a fineness certified to by foreign mints or official assayers are sent to a regular German assay office for test, but the Bank advances ⁹⁄₁₀ of the value calculated on the basis of the foreign certification, without waiting for the returns from the home assay. The balance in full is paid at the time of the receipt of these returns calculated according to them. (5) The seller of bars must agree to

[36] The German law is peculiar in that it specifies how many money units are to be made from a given weight of *fine* gold. France, England, and the United States define their money units, in the statutory law, by specifying the number to be made from a given weight of *standard* gold, or else by giving their weight in standard gold.

[37] From Swoboda (as already cited), p. 200.

take back any that are subsequently discovered to be brittle or to contain iridium, and to return the price paid for them.

Foreign Gold Coin.—The Reichsbank buys foreign gold coin as a special article, without the requirement that it shall be melted and assayed, paying for the different kinds prices which it sets forth in a schedule or tariff. The following items are selected from one of these tariffs.[38]

REICHSBANK'S BUYING PRICE FOR FOREIGN COIN PER KILOGRAM OF GROSS WEIGHT

(A few of the items given as examples)

Eagles	2,505.60 M.	(.900)
20 Franc pieces of the Latin Union countries, and certain other franc-coining countries (except Greece)	2,504.208 M.	(.8995)
10 and 5 Franc pieces of France, Belgium, and Italy, at the same price with a deduction of $\frac{1}{10000}$ from the gross weight as an allowance for dirt.		
Sovereigns	2,551.536 M.	(.9165)

The last column shows the fineness of the respective pieces implied in the price offered by the Reichsbank. To explain: the legal standard of fineness of the sovereign is .916⅔, but on account of the "remedy" or tolerance for error in minting, a given lot of sovereigns might show say an average fineness of .9165. If this lot were melted into a bar which assayed at .9165, and this bar were sold at the regular mint or bank price of 2,784 M. per fine kilogram, it would fetch 2,551.536 M. per gross kilogram. Since the Bank offers just 2,551.536 M. per gross kilogram for sovereigns, we may say it buys sovereigns on the basis of a fineness of .9165.[39] It is a point of interest that in the

[38] As given by Swoboda (as already cited), p. 204.

[39] In making this calculation the assay charges incidental to the sale of bar gold are ignored.

tariff from which the above excerpts were made, United States eagles were complimented by being the only foreign coins bought on the basis of possessing the precise degree of fineness established for them by law. Dutch, Austrian, and Japanese gold coin were close seconds, since with a legal fineness of .900 they were priced as if .8999 fine.

CHAPTER XX

SPECIE SHIPMENTS

§ 135. The classification of gold movements.—Four types of international gold movements may be distinguished. (1) First there is the export and import of gold contained in manufactured articles, jewelry, and like objects made partly of this metal. This may be called the *movement of manufactured gold.* This movement has no special relation with exchange rates, that is, it has just the same connections with these rates as has the movement of all ordinary commodities. (2) Second there is the flow of new gold from the mines to the general market of the world. This is in large part an international movement because it happens to-day that the greater portion of new gold is found outside the main zone of commerce which contains the principal gold-standard countries. And most of this gold is shipped into these countries as fast as produced. This flow, the *movement of new gold,* in part takes place without reference to the position of the international exchanges. And where it is influenced by the exchanges, and in turn exercises an influence upon them, the character of this influence or the general relation of this gold movement to the "balance of international indebtedness," is different from what it is in the case of the ordinary or "commercial" gold movement. (3) In the third place we distinguish gold shipments which have for their function the mere discharge of previously created indebtedness between one gold-standard country and another. These shipments are due to the condition of commerce (using the

term in its broadest sense) as it works out its effects through its influence upon the market for foreign exchange. This class of gold we may call the *commercial movement of gold* between gold-standard countries. It is with this movement that the present chapter has to deal. (4) Fourthly we have the *commercial movement of gold* between a gold-standard and a non-gold-standard country, or between two non-gold-standard countries. For even countries which lack a gold-standard ship the metal in and out, at least as one means of settling international indebtedness. This class of shipments resembles the third in certain respects but also has its peculiar features.

§ **136. Gold shipments for a profit.**—If it were not for the intervention of bankers and exchange dealers as middlemen,[1] merchants and other foreign debtors and creditors would have to buy and sell exchange among themselves, and they would also find it necessary from time to time to make international shipments of gold on their private and individual accounts. For when, under the influence of supply and demand, the price of exchange should mount above a certain point, those owing money abroad would find it cheaper to send gold than to buy exchange; and when exchange should fall below a certain point, those having it would not sell but would obtain better returns by sending it abroad for encashment in gold to be brought back and converted into home money. Thus there would be specie shipments without bankers. But in point of fact virtually all the shipments of gold that answer to the ascent and descent of the rates of exchange, are engineered by bankers alone. Bankers can operate at a lower incidental expense than mere merchants, and thus as a regular thing they intervene to move the metal before the rates of exchange have risen or fallen far enough to make it a business possibility for a merchant to ship it.

[1] Compare § 21.

Gold shipment amounts to a species of relief from too high or too low a swing of the exchange rates, and the action of bankers affords this relief. Nevertheless if the bankers should fail to supply the remedy, merchants themselves would find it necessary to act. To illustrate, in New York in 1896, a pool of the foreign-exchange firms of the country was formed to aid in carrying out part of the program of the famous Morgan-Belmont syndicate to sustain the gold reserves in the United States Treasury. The bankers undertook to prevent gold exports. In the course of events the rate for sight sterling rose to $4.91 per pound. Whereupon a coffee importing house of New York began to export gold, sending out enough in fact not only to satisfy its own commitments, but to establish a foreign credit against which it sold exchange to others at a profit. In this case the merchant went into the exchange business. The bankers' pool soon dissolved.[2]

Those gold movements then which take place in answer to the fluctuations of the exchanges are engineered by the bankers. And when they occur they are governed in the first instance or proximately by the position of *the rate for bankers' sight drafts.* The supply of and demand for commercial bills, or the market rates for the same, are the chief factors governing gold movements fundamentally and in the long run, but are operative only through their effect upon the bankers' sight rate. Assume that $4.8665 of United States gold coin exported to England will yield just £1 of British money after arrival, and conversely that £1 shipped from England will produce $4.8665 in America. Assume also that the total of incidental expenses for gold *export* as conducted by a New York bank will be 1½¢ and for an import 2½¢ per pound sterling. It would then

[2] This remarkable association was partly successful in effecting its chief objects. Its monopolistic high rates for exchanges were rather an incident to its main program of checking gold export.

cost a banking house $4.8815 to produce a pound of credit in London by the method of gold export. The pound would cost

$4.8665 initial outlay in U. S. money.
.0150 total incidental expenses.

$4.8815 entire cost.

The consequence of this would be that in times of unhampered gold movement the rate for bankers' sight drafts could not rise to any great distance above 4.8815. Two distinct, though related, reasons explain this. (1) The *demand* for bankers' sight sterling at ordinary rates comes in part from banks which possess the facilities for gold export. This demand would simply cease to exist at any rate appreciably above 4.8815. No such bank, acting as an individual institution in the pursuit of its own profit,[3] could be expected to pay say 4.8830 per £ for sight bills to create a fund in London when the same result can be accomplished by gold shipment, all expenses paid, at 4.8815 per £. Thus the disappearance of one element in the demand for bills as soon as the rate passes above a certain point is one influence which tends to check further rise. However the demand from banks which do not usually ship specie and the demand especially from non-banking sources would continue for a time. (2) But in the second place the ascent of the rate an appreciable distance above 4.8815 opens up a practically inexhaustible *supply* of bankers' sight exchange, and this serves, in and of itself, to put a complete check upon further rise. This supply originates in the export of gold by the banks for the purpose of selling exchange at a profit. Suppose the

[3] Concerning the cases where gold movements seem to be or are independent of the mere private profits of the shipping banks, see §§ 143–7.

non-banking demand drives the rate up to 4.8825. Then bankers generally will begin to export gold and produce a pound sterling of credit abroad at a cost of 4.8815, and at the same time sell drafts on this credit at 4.8825, making a profit of 10 "points" or $\frac{1}{10}$ cent to the pound. Perhaps not all banks will begin at precisely the same point, but there will soon come forth a supply sufficient to check further rise of exchange. It may be necessary for the shipments to continue more or less steadily through weeks or even months before the forces which tend to drive rates higher exhaust themselves. Such an outpouring of gold-export bills would be stopped by the breakdown or suspension of the gold standard, but in the case of the leading countries, before the war, the yielding of a small fraction of the entire stock of gold would always suffice. During hostilities the governments of all the belligerent and of most if not all neutral states of consequence, took control of the outshipment of gold.

Turning now to the relation of gold *imports* to the rate for bankers' sight drafts, our present assumption is that a pound of English gold coin transported to the United States, at an expense to any of our banks of 2½¢, will produce $4.8665. The net proceeds of the import of a pound will then be $4.8415 (that is, 4.8665 − .025). From this it follows that in ordinary times the price for bankers' sight drafts on London cannot fall very far below $4.8415. The great influence acting to check further decline will be the emergence of an indefinitely large demand for these bills, a demand coming from banks with facilities for gold import. If the rate falls to 4.84 for instance, a bank will make $\frac{15}{100}$ of 1¢ on every pound of bill that it purchases on this side and uses as a means of importing gold. It is true the specie cannot arrive until from 12 to 20 days after the purchase of the bills, and there is therefore an interest loss or cost in the transaction of gold

importation, but this interest charge is included in the 2½¢ which we have assumed for the present to be the costs of the import of £1 of gold. The account of the venture would therefore stand as follows:

U. S. money realized on each £ of imported gold	$4.8665
Expenses per £ (including interest)	.0250
Net proceeds from each £	4.8415
Cost of each £ in purchase of bill	4.8400
Profit per £ (about 1/32%)	$ .0015

The foregoing explanation as a whole should make it clear why gold export and import under normal and competitive conditions make it impossible for the bankers' sight rate to swing beyond certain very definite limits. As a general thing before the war, these limits stood in the case of the New York rate for sterling exchange, at about 4.88 and 4.84, and the range of fluctuation between them was something less than 1% of the mint par.

§ **137. The gold points.**—The rates of exchange at which gold movements take place are known as the "gold points." The terms "export point" and "import point" are self-explanatory. But it is not to be understood that these are really invariable or precise *points*. When under given conditions sight sterling reaches say 4.8770 gold exports may begin to move without at first taking place in great volume. The influences which are making for dear exchange may perhaps force the rate on up to 4.8790 before the full flow of gold appears which is sufficient wholly to check further rise. Thus it would be more accurate to say that at this time there is a gold export *region* in the rate, namely 4.8770 to 4.8790, rather than a precise "point." The exact cost of shipment is perhaps slightly different for different banks. The disposition of banks to move gold probably is influenced to an extent by their

estimates of the ulterior effects of the movement upon money market conditions, or upon sentiment. It is supposed that the stock market effect of a gold movement is sometimes taken into view as a matter of considerable consequence. Thus at times part of the banks or all of them may refrain from moving gold unless a considerable gain will appear in the transaction, whereas at other times they might be content with an exceedingly small profit.

In the month of April, 1906, gold imports into New York were delayed to such an extent that sight sterling reached on the eleventh so low a point as 4.8290. Again on December 7, 1903, it fell to 4.8275. The latter was the lowest rate experienced in New York in thirteen years. [4] Yet on September 12, 1905, New York engaged $1,250,000 worth of gold in London for import with sight sterling as high as 4.85.[5] Among the causes for the difference in location of the gold points at different times we may mention the following. (1) Changes in the price of gold. These changes may affect both the initial outlay and the proceeds in a gold shipment. It should be stated, however, that so far as American gold movements are concerned, there is almost no fluctuation in the purchase or sale price of gold on this side of the water. But in the European countries these prices change enough to work a considerable effect upon the gold movement. (2) The incidental expenses of moving gold also vary somewhat as between different times. Interest is one element in these charges which is always a variable. Freight and insurance costs also change sometimes, but war-times aside, not so often nor to so great an extent.

§ 138. Gold export, New York to London: practical com-

[4] See the *Commercial and Financial Chronicle* for April 14, 1906, p. 833.

[5] *See* the *Wall Street Journal* for Sept. 14, 1905, p. 8.

putations.—Coming now to the practical calculation of the costs and proceeds of gold shipments, we shall consider first an export of coin from New York to London.

EXAMPLE 1

An Export of U. S. Coin from New York to London

(Bank of England buying Eagles at 76s. 4d. per oz.)

INITIAL OUTLAY

$1,000,000 of current gold coin	$1,000.000
Full legal weight (1,000,000 × 25.8 grains) = 25,800,000 grains, or 53,750 ounces, .900 fine. Actual weight on arrival is say 53,715 ounces, showing a shortage due to all causes of 35 oz. or nearly 1/15 of 1%.	

INCIDENTAL EXPENSES

Packing and cartage	60
20 kegs of $50,000 each	
(Packing $2 per keg)	
(Cartage $1 per keg)	
Freight (at rate of 3/16 of 1% of the value) including delivery to designated party in London...	1,875
Insurance (1/20 of 1% of value)	500
Interest (none charged in this case, but see text below)	
Total outlay	$1,002,435

PROCEEDS

53,715 oz. of U. S. gold coin.	
sold as such to Bank of England at 76s. 4d. per oz. gross weight. 76s. 4d. = 916d.	
(916d. × 53,715 = 49,202,940d.) or	£205,012
Commissions or Expenses Abroad.	
A gratuity of £2 to Bank of England messenger.	2
Between regular correspondents no commissions are asked.	
Net proceeds	£205,010

COST IN DOLLARS OF £1 OF CREDIT PRODUCED ABROAD.

If £205,010 cost $1,002,435

£1 costs (1,002,435 ÷ 205,010) $4.8897

or

NO-PROFIT GOLD-EXPORT POINT 4.8897

A comparison of the net proceeds abroad in pounds, with the total outlay at home in dollars, shows that the cost of each £1 of foreign credit is $4.8897. As indicated we may call this, under the conditions, the "no-profit gold-export point." A gold point is a point or figure in the exchange rate at which we may expect a gold movement to be induced. By a *no-profit* gold point we mean the rate at which gold might be moved without the shipper making either profit or loss. Thus under the conditions of our present example, if a banker exported $1,000,000 of American coin, at an incidental expense of $2,435, and in this manner produced a credit in London of £205,010, and sold £205,010 of his demand drafts against this credit at the rate of $4.8897; he would come out exactly even. His total outlay in the venture would be $1,002,435, and his Total return would be 205,010 × 4.8897 or $1,002,435. Of course it is not at this so-called no-profit point that we would expect shipment actually to take place. If the bank should defer export until it could make certain of selling its drafts at a higher figure, as say 4.8915, it would then make a profit of $.0018 per pound, or a total profit of $369.01 or (205,010 × .0018). As we shall see, it is possible also to calculate no-profit import points. The reason for distinguishing the no-profit from the actual points, is that under given conditions and with a given sort of gold to ship, the former are precise and definite figures, whereas the actual gold points, differing as they do from the no-profit points by the margin of gain required to induce banks to make shipments, are a little less definite. Special circumstances apart, it may be said

banks do not care to move gold for a profit of less than $\frac{1}{32}$ of 1%, which means almost exactly 15 points, or $\frac{15}{100}$ of 1¢ per pound. This signifies then that the actual or ordinary-profit gold export point should stand about 15 points above the calculated no-profit export point, and the actual import point about 15 points below the no-profit import point.

In the foregoing calculation we made an allowance of $\frac{1}{15}$ of 1% for deficiency in the weight of the gold coin exported. It will of course pay an exporter to obtain as heavy coin as possible, but the precise percentage of deficiency in weight is naturally as variable as between different shipments. The less this deficiency the lower the no-profit export point will be, because the greater will be the sterling proceeds of the export. And the greater these proceeds for a given outlay at home in dollars, the less the number of the dollars of outlay will be per pound of proceeds. Thus the 4.8897 no-profit point of our example would become 4.8865 if the coin were absolutely full weight.

A gold export is a business transaction involving a money outlay and a money return. The main outlay is made on the day when the gold is withdrawn from the general resources of the bank while the return is realized on the day when payment is received for the exchange which is sold against the export. If outlay and return occur on the same day, the transaction is not chargeable with an expense for interest. If on the other hand three days, say, should intervene between outlay and return, a charge of three days interest—at the home market rate of interest—is to be reckoned against the operation. In the example under consideration three days interest at 4% would amount to $334.15. The interest charge is omitted in our calculation not on the grounds that it is negligible when it exists, but because it is a variable de-

pendent upon minor circumstances attending the shipment. It readily appears an allowance for an interest cost will raise the "no-profit gold export point." When circumstances favor the transaction loss of interest may be avoided. Quoting a letter from a gentleman in the banking business, "In actual business there is usually from one to three days loss of interest. For example, if a steamer sails Saturday at 10 a. m., the gold must be taken out and paid for on Friday, while the bill of exchange is sold under contract for Saturday's steamer and paid for on that day. Now if this latter transaction is settled for in *gold,* there would be a loss in interest of one day; but according to custom the bill of exchange is paid for by a draft on some Clearing House institution, which must be presented for payment through the Clearing House on Monday; so actually you would get payment for the bill of exchange in gold three days after you made the payment for the shipment. On the other hand, should the steamer sail at 4 o'clock in the afternoon and dock on the other side before 10 a. m. there would be time to clear the transaction during banking hours, both here and abroad, which would cause no loss of interest. We always take into consideration the actual conditions at the time the shipment is made." [6]

EXAMPLE 2

Another Export of Coin—with a Higher Price for Eagles

(If the Bank of England should raise its price for U. S. gold coin to 76s. 6d. per ounce, the following calculation would hold):

INITIAL OUTLAY	(as before)
INCIDENTAL EXPENSES	(as before)
Total	$1,002,435

[6] This information the author owes to the kindness of Mr. G. E. Gregory of the National City Bank of New York. The freight, in-

PROCEEDS	
53,715 oz. of U. S. gold coin sold to Bank of England @ 76s. 6d. per ounce gross weight (918d. × 53,715 = 49,310,370d.) or	£205,459⅞
Less sterling expense	2
Net proceeds	£205,458
NO-PROFIT GOLD EXPORT POINT ..... (1,002,435 ÷ 205,458)	4.8790

This example illustrates the fact that the higher the price of eagles abroad, the greater are the sterling proceeds of export per dollar of outlay, and the lower is the export point. If the English price of eagles ascends from 76s. 4d. (first example) to 76s. 7d. per ounce (second example), the gold point descends from 4.8897 to 4.8790, or more than 1¢.

The "fine bars" which the New York Assay Office sells at a premium of 40¢ per $1,000, or ⅛₅ of 1%, are the cheapest and best form of gold for export from New York.[7] They are always used in preference to coin to export to *Europe* when a supply of them is available. At times the demand for gold for export will temporarily outrun the New York supply of bars and in these cases coin may be shipped to Europe, even in large quantities.

EXAMPLE 3

An Export of Fine Bars from New York to London.

(Bars sold to Bank of England at its minimum price of £3 17s. 9d. per oz. .916⅔ fine.)

surance, and cartage rates used in the calculations in the text, are those given by Mr. Gregory as being in force shortly before the war began. Mr. Gregory states that a bank would hardly expect to move gold for a profit of less than ⅛₂ of 1%.

[7] Compare § 130.

INITIAL OUTLAY

Invested in assay bars, say, .999 fine with a contents of 48,375 oz. of fine gold, at $20.67183 per oz. fine $1,000,000
Plus premium of 40¢ per $1,000 400

$1,000,400

INCIDENTAL EXPENSES

Packing and carting 60
Freight (3/16 of 1%) 1,875
Insurance (1/20 of 1%) 500

Total outlay $1,002,835

PROCEEDS

48,375 oz. of fine gold make 52,772.727 (12/11 of 48,375) oz. of gold 11/12 fine; counted to nearest 1/40th oz. below as 52,772.725 or 52,772 29/40 oz. at the Bank,
bought @ £3 17s. 9d. per oz. £205,153.96⅔
Less minor expense ..... 2.

£205,152.

NO-PROFIT EXPORT POINT $4.8882
(1,002,835 ÷ 205,152)

EXAMPLE 4

THE SAME—WITH A HIGHER PRICE FOR BARS.

(Bars sold to the Bank of England at the relatively high [though not the highest] price of £3 17s. 10½d.)

TOTAL OUTLAY, the same as before $1,002,835

PROCEEDS

48,375 oz. of fine gold, making 52,772 29/40 oz. of standard gold (.916⅔ fine) @ £3 17s. 10½d.) per oz. £205,483.89
Less minor expense ..... 2.

£205,482.

NO-PROFIT EXPORT POINT $4.8804
(1,002,835 ÷ 205,482)

EXAMPLE 5

THE SAME—With Bars Sold in the Market at the Extreme price of £3 18s. 0½d.

PROCEEDS

52,772$^{20}/_{40}$ oz. @ £3 18s. 0½d.	£205,923.57
Less minor expense	2.00
	£205,921.00

"NO-PROFIT GOLD-POINT"

1,002,835 ÷ 205,921 = 4.8699 or $4.8700

This gives us the extreme minimum point of normal times, and if a shipment incurs an interest charge the point cannot fall quite so low as this. On October 24, 1904, the New York *Financier* reported as a matter of interest that owing to the exceptionally high price then being offered in London for gold bars, the export point lay between 4.87 and 4.87¼.[8] A comparison of the five preceding examples gives us the following:

Comparative Table of No-Profit Gold Export Points

(In the rate for demand sterling)

1. Export of *coin* ($^1/_{15}$ of 1% short weight) price of eagles at £3 16s. 4d.	4.8897
2. Export of *bars,* price £3 16s. 4d. per ounce, .916⅔ fine.	4.8882
3 Export of *bars,* price £3 17s. 10½d.	4.8804
4. Export of *coin* ($^1/_{15}$ of 1% short weight) price of eagles at £3 16s. 6d.	4.8790
5. Export of *bars,* price £3 18s. 0½d.	4.8700

As already said, we should assume that banks must ordinarily obtain a profit of $^1/_{32}$ of 1% before they will undertake specie shipments, and therefore without regard to possible interest charges we should add $^{15}/_{100}$ of 1¢ to each of the above rates to find the actual rates at which export may be expected to take place.

[8] The number for October 24, 1904, p. 2,002.

§ 139. Gold import by New York from London.—Our next task is to calculate the "no-profit gold import point" in the rate for bankers' sight sterling. We treated the complete transaction of gold *export* as consisting in two parts, (1) the shipment of the specie itself and (2) the sale of bankers' sight exchange as a means of realizing on the shipment. It is true a gold export might take place without an accompanying sale of exchange but what we may well call the standard operation of gold export is completed in these two steps. In a similar way, the standard operation of gold *import* consists in two parts, (1) the purchase of exchange as a means of obtaining the gold abroad, and (2) the inshipment of the specie itself.

In the illustration to follow of gold import by New York, we shall assume that "fine" bars can be procured in the London market at the price of £3 17s. 10d. The reader will understand, of course, that besides bars, British gold coin can always and American gold coin can generally be obtained. We shall suppose the importer to deal with approximately $1,000,000 of bars.

EXAMPLE 6

An Import of Gold Bars by New York from London Against a Purchase of Sight Drafts

(Bars being procurable in the London market @ £3 17s. 10d.)

INITIAL OUTLAY IN LONDON	
Purchase of "fine" bars (say .999) which have a contents of 48,400 oz. of pure gold, at a rate of £3 17s. 10d. per standard-oz. of contents.....	£205,480.
INCIDENTAL EXPENSES PAID IN LONDON	
Packing and cartage	10.
Freight (3/16 of 1% of value)	385.
Insurance (1/20 of 1% of value).....	102.
Total sterling outlay	£205,977.

PROCEEDS ON ARRIVAL IN NEW YORK

48,400 oz. fine gold sold N. Y. Assay Office @ $20.67183 per fine oz.	$1,000,516.57
Less charge for copper	106.57
[There are no other charges for this kind of gold.[9]]	
Net proceeds on arrival	$1,000,410.00

THE INTEREST COST

Deduct 20 days' interest at N. Y. market rate, say 4%	2,218.
PRESENT WORTH OF THE PROCEEDS	$998,192.

That is, present worth at the time when the sight exchange was bought, or 20 days before gold arrives and proceeds are obtained.

NO-PROFIT PURCHASE PRICE FOR SIGHT DRAFTS, OR NO-PROFIT IMPORT POINT

$998,192 obtained for £205,977 of drafts bought, which means $4.8461 (*i.e.*, 998,192 ÷ 205,977) obtained for £1 of draft bought $4.8461

Before proceeding to the necessary explanations of the items in this calculation, we had best give two more examples.

Example 7

The Same Import—Except against a Purchase of Cables

NET PROCEEDS ON ARRIVAL IN NEW YORK $1,000,410

[The same as in Example 6.]

THE INTEREST COST

10 days' interest @ 4%.	
[10 instead of 20 days]	1,110
PRESENT WORTH OF THE PROCEEDS	$999,300

[9] Compare § 130.

That is, at the time when the cable transfer was bought, 10 days before gold arrives and proceeds are obtained.

NO-PROFIT PURCHASE PRICE FOR CABLES, OR NO-PROFIT IMPORT POINT IN CABLE RATE

(999,300 ÷ 205,977) $4.8515

EXAMPLE 8

An Import of U. S. Gold Coin by New York from London

(Bank of England selling Eagles at say 76s. 7d. per oz.)

INITIAL OUTLAY IN LONDON	
$1,000,000 of U. S. gold coin bought from Bank of England for 76s. 7d. per oz., actual weight, say, 53,715 oz. (*i.e.*, 1/15 of 1% under legal weight)	
53,715 oz. @ 76s. 7d.	£205,683.+
INCIDENTAL EXPENSES PAID IN LONDON	
Packing and cartage	10.
Freight (3/16 of 1% of value)	385.
Insurance (1/20 of 1%)	102.
Total sterling outlay	£206,180.
PROCEEDS ON ARRIVAL IN NEW YORK	
$1,000,000 of home coin	$1,000,000.
THE INTEREST COST	
20 days' interest at 4%	2,217.
PRESENT WORTH OF THE PROCEEDS.....	$ 997,783.

As explained in Example 6.

NO-PROFIT PURCHASE PRICE FOR SIGHT DRAFTS..... $4.8394

(997,783 ÷ 206,180.)

THE NO-PROFIT PRICE FOR CABLES WOULD BE..... $4.8447

(Taking 10 days' interest, cf. Example 7)

(998,891 ÷ 206,180)

An *export* of gold against a sale of cables is not a simple or standard operation because it would either involve an overdraft or loan in London for the period which must elapse between the arrival of the cable draft and the subsequent arrival of the gold credit, or would necessitate a delay of say 5 to 10 days before the cables could be sold. If the sale of cables were withheld until the gold credit should be established abroad, a speculation on the course of cables would be involved. Since there would have to be some special reason for selling cables later rather than selling demand bills immediately, an export of gold against a sale of cables should not be considered a standard operation. But the operation of an *import* of gold against a purchase of cables (as a means of procuring the foreign gold) is simple or standard. If cable transfers for £206,180 are bought in New York to-day, they establish a credit in London to-day or to-morrow and this credit may be converted into gold forthwith which is due to arrive in New York in 10 days or less from to-day. If sight drafts for £206,180 are bought to-day, we must allow say 10 days for the drafts to reach London and 10 days more for the gold to get back to New York, or a total of 20 days. Ten days is a liberal allowance for the transatlantic mail and express, and frequently the cable and sight draft operations of our illustration can be brought to conclusion in shorter periods than we have assumed.

A banker will of course figure the interest costs on the basis of the *actual* time elapsed between investment in exchange and realization on the gold, a period depending on circumstances.

Before giving further attention to the interest cost chargeable against gold movements, we may put together from the foregoing tables a summary of gold import points.

Summary of Gold Import Points as Shown in the Particular Examples Preceding [10]

Demand Drafts	No-Profit Point	Ordinary Profit Point
Import of bars costing £3 17s. 10d...	4.8461	4.8445
Import of U. S. coin costing 76s. 6d. per oz.....	4.8394	4.8380
Cables		
Import of bars as above.....	4.8515	4.8500
Import of coin as above.....	4.8447	4.8430

To show how an importing bank makes a profit, let us assume that under the conditions of Example 6, a bank is able to buy £205,977 of sight drafts in New York at 4.8445, 16 points under the "no-profit" import point. The drafts will cost a total of $997,855. Mailing these drafts abroad, the bank engages gold for import. It thus procures 48,400 ounces of fine gold expenses of delivery in New York prepaid. This bullion arrives 20 days after the purchase of the £205,977 of drafts, and yields net proceeds of $1,000,410 by sale to the New York Assay Office. The net proceeds exceed the outlay by $2,555 (1,000,410 – 997,855). From these gross profits substantially $2,218 must be deducted for interest lost (that is, foregone) at the New York market rate of 4%. This leaves a profit of $337, which is a little more than 1/32 of 1% on the original outlay.

In engaging gold in London for import, the decision whether bars or coin should be obtained depends simply upon the relative prices existing at the time for these forms of gold. Whether demand sterling or cables should be purchased on this side as the means of procuring the

[10] With the particular rate of interest assumed in these examples the difference between the cable and the sight rate import points will be affected by a change in the interest rate.

gold abroad, depends upon the space or "spread" between the demand and cable rates. The cable operation involves roughly about half as much loss of interest as the operation with demand drafts, but cables will ordinarily cost about enough more to compensate for this. It is generally understood that in practice the greater part of New York's gold imports are provided for by the purchase of demand drafts rather than cables.

§ **140. The place of interest in the cost of gold movements.** —Any kind of business transactions involving an outlay of money (or its equivalent) and a subsequent return, is chargeable with interest for the time running between the outlay and return. If the return exceeds the outlay merely by an amount equal to interest, the transaction results neither in profit nor loss. This is but another way of saying that the return just equals the "costs." *Gold export* against a sale of demand drafts involves no interest cost if incidental circumstances are the most favorable possible, because the return from the sale of drafts may be had on the same day with the outlay for gold. But, as already explained, more frequently from one to three days elapse between the payment for the gold and the receipt of money for the drafts. The true interest charge depends simply on the actual loss of time experienced. As far as the time consumed in the transatlantic passage is concerned, the gold, which will be credited to the account of the New York exporting bank, travels just as fast as the drafts which will be debited. *Gold import* against a purchase of exchange in the home market always involves an interest cost. In what we have called the "standard" operation of gold import, as considered in the preceding pages, the exchange is first purchased and remitted abroad for conversion into gold. The latter is then shipped home. Thus a time must always elapse between outlay and return.

The problem of the interest charge against gold movements presents certain curious aspects that require examination to safeguard us against confusion. A gold shipment from London to New York may show at least three different interest costs, depending upon the manner in which the shipment is engineered.

The practical interest charge on a gold shipment from London to New York

(1) On the basis of N. Y. rates for sterling.
  (a) Against purchase of demand drafts..12–20 days' interest
  (b) Against purchase of cables..... 7–10 days' interest

(2) On the basis of London rates for New York exchange [11]
  (c) Against a sale of N. Y. drafts..... 0– 3 days' interest

In all three cases, is not the gold locked up in the steamer's express room for the same length of time? Since during a period of, say, 10 days the gold can serve as bank reserve on neither side of the water, is not the real interest loss necessarily one for just 10 days in all three cases?

We might have knowledge that a consignment of 20 kegs of gold is upon a transatlantic steamer westward bound, and that this metal will be locked up 10 days, but we could not tell whether the bank making the shipment is charging its venture with an interest cost of 0, 10, or

[11] In this case the shipment is an export by a London bank, a transaction which is less common than the N. Y. import, but not unknown. The London bank simply exports gold to a New York correspondent and immediately sells drafts in London upon that correspondent. The operation is undertaken upon the basis of the London price for New York exchange and has no reference whatever to the New York price for London exchange. However when the London rate on New York is in position for a gold export, the New York rate on London will necessarily be about in position for a gold import, that is, the same movement.

20 days. This, because we do not know the full terms of the bank's transaction. The gold is, nevertheless, locked up just 10 days in all three cases, and there is in all cases a *final* interest loss of just 10 days, which would show as such if the three calculations were reduced to final and equivalent terms. To avoid devoting too much space to this incidental though curious point of theory, we will not extend our discussion beyond giving an answer to one question. When a New York bank exports gold and sells demand sterling, and makes no interest charge against its transaction, what has become of the real interest cost which we nevertheless know must exist for the time consumed in passage? Suppose the bank is an office of an international house, and makes the export simply to the London branch of the same house. The interest loss must be borne by this international house. The truth is, it will fall upon the New York branch. It lies in the discount which resides in the price of demand exchange as compared with cables. Suppose a good fairy should wish this particular gold over to London for the bank *instanter*—or some of its spiritualistic friends should "levitate" it over—thus saving the time required for ordinary passage. In what form would the consequent saving of interest to the bank appear? The answer is, in the shape of the excess proceeds which it could now obtain by selling cables instead of sight drafts. The good fairy might enable it to sell say £205,458 (see Example 2) of cables at perhaps 4.8850 instead of the same sum of demand exchange at 4.8790. Thus it would make an extra gain of $1,232.75 which in fact it fails to get because it really takes as much time for the gold to get across the sea as for demand drafts. This sum is the hidden interest lost. Doubtless this subject should be further explained to be wholly clear, but we cannot afford to develop it at greater length. The calculations of interest costs as given in the examples in

the text are the correct ones to show the no-profit gold points *in the particular rates of exchange* with which each example is concerned. In no case is the time spent by the gold in transit to be taken in and of itself as the basis for the interest charge to be made against a gold shipment in calculating the gold point in any given exchange rate. It is true this time has much to do with the period which must elapse between the actual outlay and actual return to the shipper, but the latter period alone governs the interest charge.

§ 141. **Variant methods of calculating the interest charge.** —By condensing Example 6 as given on pages 531–2, we obtain the following:

Initial outlay in London for gold bars containing 48,400 ounces of fine gold	£205,480.
Incidental expenses paid in London	497.[12]
	£205,977.
Net proceeds from bars on arrival in N. Y.	$1,000,410.
20 days' interest deducted, @ 4%	2,218.
	$ 998,192.
No-profit purchase price for sight drafts (998,192 ÷ 205,977)	$4.8461

This table exhibits the method which we have employed thus far in calculating the interest charge in gold import. It shows that (the price of gold and the costs for packing, cartage, freight and insurance being given) demand bills to the amount of £205,977, purchased in New York for the purpose of importing gold, will produce proceeds from the metal on arrival of just $1,000,410. But these returns are received at home 20 days after the investment of home

[12] It is assumed that the incidental expenses of £497 are payable in advance of the shipment, so that the operation is chargeable with interest upon them as well as upon the "initial outlay."

money in the £205,977 of exchange. The sum of $1,000,410 receivable in 20 days, with interest calculated at 4%, has a present worth of $998,192, the interest itself coming to $2,218. Thus, if 4% is the market rate of interest for funds employed at home in ways involving about the same degree of risk as an investment in the operation of gold import, the banker who ventures $998,192 in the latter business for a return of $1,000,410, makes just market interest. That is, he makes no profit, in that narrow and proper sense of the term which excludes interest. If then the banker is to pay just $998,192 for £205,977 of exchange, the rate of exchange will have to be 998,192 ÷ 205,977, or 4.8461. This figure is therefore the no-profit gold-import point in the sight rate. If the operator were to pay more than this figure per pound sterling for the bills, he would fail to make full market interest in his venture. If, however, he could buy bills for less, he would make something more than interest.

A variant method of reaching the same result is shown as follows:

Total sterling outlay	£205,977.	
Net proceeds from gold on arrival	$1,000,410.	
Dollars of proceeds per pound of outlay (1,000,410 ÷ 205,977)		$4.8569
20 days' interest @ 4%, deducted from 4.8569		.0108
No-profit gold import point		$4.8461

To explain: the third item of the table shows that for each £1 of exchange purchased, the banker receives a return of $4.8569 worth of gold laid down in New York. Now $4.8461 is the sum of money which, if put out at 4% interest for twenty days, will earn $.0108 and will amount to $4.8569 at the end of the 20 days. It follows if the banker pays $4.8461 for £1 of exchange which through the importation of gold converts into $4.8569 of home money

at the end of 20 days, he makes just 4% in his venture, and consequently makes neither profit nor loss.

In the third place, the calculation may take the following form:

Initial outlay for gold in London.....	£205,480.
Incidental shipping expenses (see Example 6)..	497.
	£205,977.
Interest on £205,977 for 20 days @ 4% (calculated in sterling)	457.9
"Total costs"	£206,434.9
Receipts from gold in New York.....	$1,000,410.
Receipts per £, or no-profit gold point (1,000,410 ÷ 206,434.9)	$4.8461

This calculation will always give a correct result, not however because it gives a correct representation of the actual stages in the import transaction. In fact it is quite misleading in at least one point, and if given alone, tends to confuse the reader. For instance it would seem to indicate that the banker actually invests £205,977 of sterling for 20 days. But this, of course, is not precisely what he does. Furthermore it reckons, or ought to reckon, the interest on the principal sum of sterling at the *New York* market rate of interest. And this again would seem confusing. The reason why the method followed in this calculation works, is simply that it happens to be a precise *arithmetical,* though merely arithmetical, equivalent of the true method. We had best consign the explanation of this to a footnote.[13]

[13] 20 days' interest, taking a year as 360 days, is $^{20}/_{360} \times 4\%$, or $^{20}/_{360} \times {}^{1}/_{100}$, or $^{2}/_{900}$. The rate of 4.8461 is, in the first and third calculations given just above, the result of the division of a sum of dollars by a sum of pounds. The divisor and dividend are indicated in each instance. In the first and correct calculation, the result of

§ 142. The gold points and the mint par.—A mint par is the figure which expresses the relative contents in pure gold of the monetary units of any two gold-standard countries.[14] So long as two given countries have free and gratuitous[15] (or virtually gratuitous) coinage of gold, the mint par between them will serve as the fundamental regulator of the "gold points" in the exchange rates of either country on the other. The gold points will lie at approximately equal distances to either side of the mint par, and therefore the latter will serve as the approximate center of oscillation of the exchange rates. If we examine the practical calculations of the costs and proceeds of gold shipments we see that what the mint par does is to govern the ratio between the initial outlay for gold in the money of the one country and the proceeds received for the same gold in the money of the other country. Thus if £10,000 of English money is spent for gold in London, this same gold when brought to New York is bound to yield very close to 4.8665 times as many American money units, or $48,665. If sovereigns were the form of gold shipped out of England, the only factors which would make the ratio of *pounds sterling given up* to *dollars obtained* vary from 1:4.8665, would be deficiency in the weight of the

making an allowance of 20 days' interest is to reduce the dollar, or *dividend* number, from 1,000,410 to 998,192, or to reduce it to just $^{900}/_{902}$ of itself. In the third or last calculation, the effect of the interest allowance as erroneously introduced, is simply to increase the pound, or divisor number, from 205,977 to 206,434.9 or to increase it by $^{9}/_{000}$ of itself, or make it $^{902}/_{000}$ of itself. It is a fortunate circumstance that an increase of a divisor to $^{902}/_{000}$ of itself has just the same effect as the decrease of a dividend to $^{900}/_{902}$ of itself, otherwise the common practical method of figuring the interest cost on a gold import would not yield a correct result. For it does not follow the facts of the transaction.

[14] Taking these units as defined by law: *see* formal definition of the mint par, § 103.

[15] Free and gratuitous coinage are distinct. *See* § 105.

actual sovereigns and the very small charges of the U. S. mint exacted in the purchase of sovereigns. If bar gold is the form of metal shipped from England, the market price per ounce *payable in sovereigns* must be to the price per ounce *received in dollars* very nearly as 1:4.8665. This is true because these two prices must, as we know, lie very close to the mint prices for gold in the respective countries, and except for the very small coinage or standardizing charges made by mints, the mint prices for fine gold are one to the other exactly in the ratio of the mint par.

Thus it takes 4.8665 dollars to contain as much pure gold as one sovereign, and therefore of course, under the system of free and gratuitous coinage (ignoring small charges for standardizing) the United States mints are bound to give 4.8665 times as many dollars for an ounce of pure gold as the British mint gives sovereigns for an ounce of pure gold.[16] We know that the total of the incidental expenses and interest costs of a gold shipment (between places as distant as New York from London) varies from something less than ¼ to something less than ½ of 1% of the value of the shipment. If there were no incidental costs at all, the ratio between outlay for gold in one money (as pounds sterling) and proceeds for the same gold in the other money (as dollars)—namely the ratio governed by the mint par—would be the sole factor governing the gold points. Considering how small the incidental costs are, this ratio remains the one great influence

[16] The British mint price for standard gold, 11/12ths fine, is £3 17s. 10½d., or £3.89375, per ounce. The U. S. mint price for gold 9/10ths fine is $18.60465 per ounce. 1:4.8665 is not the ratio between these two mint prices, but the ratio between the mint prices for *fine* gold deducible from them. The "basis" price (*see* § 109) for fine gold is in England 12/11ths times £3.89375 or £4.24772. The U. S. basic mint price for fine gold is $20.67183 (that is, 19/20ths times $18.60465). Now 4.24772 is to 20.67183 as 1 is to 4.8665.

determining the gold-points and thus the limits which confine the fluctuations of exchange rates.

Roughly speaking, the gold-export point is the mint par plus incidental costs of export, and the gold-import point is the same figure minus the incidental costs of import. But a striking fact in this connection is that, in the case of exchange between somewhat distant places, the under, or import, point in the sight rate of exchange is further away from the mint par than the upper or export point. The reason is that in gold import interest is lost for a period of at least double the time required for the mail and express transit between the places; while in gold export there is either no interest loss or else a very slight one.

If one or both of two given countries were to suspend the free coinage of gold, or were to continue its coinage at a substantial seigniorage, the mint par would cease to bear its ordinary relation to their mutual exchange rates. For the imposition of a seigniorage would affect the mint price, and consequently the market price of gold, and so would affect the relation of outlay to proceeds in gold shipments. Even the slight seigniorage of about ⅛ of 1% charged by the mint of France, exercises a certain effect upon the relation of the French mint pars to the gold points of the exchanges in and on France.

§ 143. Special banking methods of influencing the gold movement.—Speaking with especial reference to countries having the gold standard, it may be said exportation of gold has a tendency to raise money rates and lower the prices of securities, and if long continued also to lower the prices of commodities. Importation of gold has a tendency to produce the opposite results. It is for these reasons that the trading and enterprising classes, who are usually interested in an immediate future of lower money rates and high prices, are prone to regard gold import

as a favorable and gold export as an unfavorable event. Since the beginnings of writing and speaking on the subject, there have always been those to maintain, whether expressly or by implication, that the national object in engaging in foreign trade is, or ought to be, to get gold or specie away from other countries. This delusion which has been repeatedly exposed in the most workmanlike manner, seems fated to persist as something impervious to reason. Akin to it is the notion that unless something is done to prevent foreigners selling us their wares too freely, we are likely to have to export so much gold as to undermine or destroy our gold-standard. The reason why it is not absolutely essential to do something about this is that there is a natural and automatic remedy for excessive exports of specie. To call this remedy "natural" does not signify that it is necessarily wholly good and absolutely all-sufficient, but merely that it becomes operative without calculated action to affect the specie movement being taken by a government or by a great central bank. It works by changing the course of trade or business, and so depends on human motivation, but it is automatic in the sense that no authority plans and executes it with a purpose of making it effective. It consists in a fall (whether absolute or relative) of the prices of commodities within the country suffering the excessive exports of gold. This natural fall of prices will be preceded by a rise of money rates, but it is the fall of the prices of goods that is the fundamental remedy. The fall of prices (or relative fall of prices [17]) operates to check imports and increase exports of goods and thus to reverse the flow of specie.

It has not been the practice of all countries to rely exclusively upon the natural or automatic remedy. In time of war the government or central bank of a country is apt

[17] A rise of prices less rapid in the one country than abroad may be called a relative fall.

to assume a more or less complete control of the gold movement. In truth during the great war just closed this action was taken in practically all countries, belligerent and neutral, which possessed any gold put to monetary use. However war-times aside, it has been the policy of some central banks to employ certain special devices to influence the gold flow in the interest of local financial comfort. It is to these expedients our attention is next to be directed. Resort to them is not founded on the supposition that the natural remedy will fail but rather on the notion that the artificial ones may serve until the turn of the tide, and make the experience less severe.

The measures in question fall into two classes according as an effect is worked (1) on the rates of foreign exchange, or (2) on the points in these rates at which gold shipment will take place. The chief exemplar of the first class is manipulation of the discount rate. The institution which has, up to the present juncture in the world's financial history, most successfully and most regularly employed this remedy is the Bank of England, England having been the country whose position has made possible a very effective use of it. With the British the proceeding has often been known as "correcting the exchanges," because it acts to bring the exchange rates to a more favorable position.

§ **144. Manipulation of the discount rate.**—As indicated on earlier pages, the official discount rate of the Bank of England is ordinarily non-operative or non-effective. When this is the condition it stands above the market rate —that is, above the particular market rate which applies to the same class of bills as the bank rate—and no actual discounting goes on at the bank rate. If now it chances that the demand for accommodation increases so as to drive the rate in the market up to or above the Bank rate, the latter becomes operative or effective in the sense that dis-

counting begins to take place under it. When this happens the Bank's reserved discounting power is brought to the aid of the market. Now of course the Bank has in these times the power of determining, with limitations, the point at which the rising market will overtake the bank rate. In other words in times of very active demand for accommodation in the money market the Bank may exert a decided control over market rates of discount. Sometimes when these rates do not rise so high as the Bank thinks they ought to under the circumstances or in view of the position of the exchanges, it takes measures to further their ascent. The following is evidence on this point, from the interview granted the National Monetary Commission (U. S.) by the Bank of England.[18]

Q. Does the bank sometimes borrow money in the open market for the purpose of raising the market rate?

A. Yes.

Q. Do you sometimes sell consols for the same purpose?

A. Yes; on rare occasions.

When the bank sells consols, or British government debt, with this object, it is understood it sells them for cash and buys them back "for the account" or for future delivery, the operation having the effect of draining a certain amount of cash out of the market temporarily into the bank. Such proceedings are spoken of as "making the Bank Rate effective."

When it is said the Bank of England by the agency of its discount rate "corrects the exchange" and regulates, or at any rate, influences the gold flow in and out of England, it must be understood that such results as are accomplished follow only from the effects which the Bank

[18] From "Interviews on Banking and Currency Systems," published for the National Monetary Commission, 1910 (Senate document No. 405, 61st Congress, 2d session), p. 29.

is able to produce in the open market for money. For it is the open market rate, or group of rates, that reacts on the rates of foreign exchange, and not the Bank rate in and of itself. A rise in London discount rates tends to attract gold to London or to restrain its outflow. It exerts, so to say, an attractive influence upon gold. If the exchange rates, in some other country, or countries, upon England are almost in position to cause a gold flow to England, a rise in the London discount rates serve to precipitate or superinduce the movement, this being brought about by the tendency of the higher charge for discounting to raise the rates of exchange in the other country or countries. The elevation of the British discount rates operates to pull the exchange rate in the other country up to its gold-export point. If the rates of exchange are moving toward the point where a gold outflow from England is imminent, an elevation of the discount rates serves to restrain the movement by restraining the exchange rates from falling to the gold-import point in the other country. When we say an elevation of the discount rate serves to produce these effects, we should be understood as meaning that it *tends* to produce them, or operates as one force in the direction of producing them. In fine, it *tends* to bring in gold or restrain its outflow according to the circumstances, and does so through the effect it tends to produce on the exchanges.

The information respecting the bank rate, contained in "Interviews on Banking and Currency Systems," cited a moment ago, is of much interest in this connection and has the advantage of possessing a semi-official character. From the "Report of Answers to questions addressed to the Governor and Directors of the Bank of England," we take the following queries and replies.

Q. How and by whom is the bank rate fixed?

A. The bank rate is fixed at the weekly meeting of the court of

directors, but the governor has power to raise the rate at any intermediate time, should circumstances in his opinion render such a course necessary.

Q. When and under what conditions is the bank rate changed?

A. The bank rate is raised with the object either of preventing gold from leaving the country, or of attracting gold to the country, and lowered when it is completely out of touch with the market rate and circumstances do not render it necessary to induce the import of gold.

* * * * * * * * *

Q. Do you regard prompt and adequate increase in the bank rate as the most effective measure to protect the bank's reserves?

A. Yes.

Q. Does the raising of the bank rate ever fail to attract gold and change the course of the exchanges?

A. Experience seems to prove that the raising of the bank rate to a sufficient level never fails to attract gold, provided the higher rate is kept effective.

* * * * * * * * *

Q. What effect did raising the rate in the period from October, 1907, to January, 1908, have upon the bank's gold supply?

A. On the 15th August, 1907, the bank rate was raised to 4½% and so continued until the 31st October, when it was further raised to 5½%. On the latter date the total bullion held by the bank was £31,700,000 and the proportion of reserve to deposits 39.9%. On the 4th November, owing to further withdrawals of gold, the governor, acting on his powers, raised the rate to 6%. On the 7th November the court of directors raised the rate to 7%, the total bullion being £28,700,000 and the proportion [of the reserve] 35.2%. Thence forward the inflow of gold was greater than the outflow, thus demonstrating the power of an effective increase of rate.[19] On the 11th December the total bullion was £34,100,000 and the proportion 47%. At the end of January, by which time the rate had been gradually reduced to 4%, the total bullion was £38,500,000 and the proportion 56.6%.

[19] An "effective" increase of rate here means one effective in bringing up the *market* rate of discount.

Q. From how many countries did the bank receive gold as a result of the increase at that time?

A. Twenty-four, including British colonies.[20]

During November and December of 1907 the net exports of gold to the United States from the United Kingdom were $85,000,000.[21] It was while London was withstanding this drain that it succeeded in gathering in the metal from 24 different countries.

NET IMPORTS (U. S.)

	Nov., 1907	Dec., 1907
Total from all countries	$62,959,000	$43,444,000
From United Kingdom	53,311,000	31,244,000
From Canada	4,835,000	3,388,000
From France	1,414,000	2,906,000
From Germany	1,250,000	10,000

From *Monthly Summary of Commerce and Finance* (Department of Commerce and Labor) for Nov., 1907, p. 855, and Dec., p. 1053.

It devolves upon us next to examine the mechanism through which an elevation of the discount rate works out its effects on the gold movement. In the course of this examination we shall discover why, heretofore at any rate, England alone has been in a position to utilize this remedy systematically and with striking success. It may be said in a general way that for London to raise its money rates, or charges for short-term advances of various descriptions, will necessarily tend to quicken repayments by foreigners of funds borrowed there and restrict the demands of these same people for further accommodation. Thus it tends to augment the inward and decrease the outward flow of money funds,[22] and exerts an influence in the direction of bringing in gold. But such a statement does not serve as

20 From "Interviews," etc., as cited, pp. 26–7.

21 Beneath are given some further details of the imports of gold into the United States during these months.

22 Or of "money" as some would say.

an adequate explanation. To obtain this it will be incumbent on us to enter into the subject more technically.

The ordinary gold movement depends on the rates of exchange.[23] The very first effect of an elevation of the discount rate, is an increase of the spread between the sight and long rates of exchange in other cities upon the city where the discount rate is raised. Thus if discounts are advanced in London the first effect on the exchanges will be an increase in the spreads between sight and long sterling in the various money capitals of the world. If the London market discounts the 60 days' acceptances of London bankers at 3%, the spread between the sight and 60 days' rates[24] in New York, would normally be 2.90 cents per pound. But if this rate rises to 5%, the spread would increase to 4.25 cents.[25] But the gold movement does not depend on this or any other spread but upon the position of the sight rate itself. If the sight rate is not at one of the gold points, but lies between, resting for instance at 4.85 or 4.86, there can be no ordinary gold flows whatever be the spreads between it and the 60 and 90 days' rates. Thus if a change of the discount rate is by its reaction on the exchanges to work some influence upon the gold flows, it will have to do so by way of its effect on the rate for sight exchange.

Now in fact an elevation of the discount rate in London puts a strong upward pull on the sight sterling rate in

[23] It is admitted gold *can* be moved when the exchanges do not favor it, for it is always *possible* to move it even at a loss. Conceivably a central bank might come to a position where import of gold at a loss would be reasonable.

[24] That is, between the rates for bankers' checks and bankers 60 days bills on London.

[25] If we compute according to the practical method, employed commonly before the war began, the spread is the same whether the sight rate is high or low. For illustration (and discussion of the slight error involved) *see* § 64.

New York, or in any other foreign money center: this is because it operates to restrict the supply of and increase the demand for sight sterling. To develop the reasons let us analyze the case of New York. (1) In ordinary times London is continually discounting a great stream of long sterling bills drawn by American exporters, many under sterling credits against sales of goods all over the world.[26] We are already familiar with the ordinary procedure of our banks. On taking these bills they forward them forthwith to London for discount and immediate sterling credit and against the credits so created sell their own sight drafts. The latter constitute a very important element indeed in the supply of sight sterling in New York. The supplies of sterling exchange flowing from our exports consist in the first instance mostly of long bills because in the greater number of cases the arrangements of exporters with their importers permit only of the drawing of such bills. But the unceasing flow of long sterling converts into sight sterling by the process just remarked. This conversion depends however on the prompt and continual discounting in London of long bills drawn on that city.

Now then if London raises sufficiently the charges which it levies for this discounting, our banks will be induced to invest in the commercial long sterling coming daily to their counters. The moment they take this line they postpone its conversion into immediate London credit and thus perforce postpone the offer on the market of their sight drafts which originate in this conversion. Thus while ordinarily London not only permits but practically encourages, the immediate conversion, it has the power through raising its discount rates to induce the postponement, and it has

[26] We write of the system as it was at the time of the beginning of the great war. The present tense is used on the theory that when financial conditions become settled we shall find that the same system is *in good part* enduring.

the power, through positively *refusing* to discount, to *force* postponement. Therefore it has the power to switch off from our market, for the time being, a large element of the supply of sight sterling bills. Meanwhile the demand for this same exchange to cover maturing sterling acceptances created under commercial credits issued by our banks in the immediate past, and to cover maturing finance bills, and to pay off travelers' checks, will continue for the time being unabated. All this operates to raise the rate in New York for sight sterling.

(2) We have already seen that if the London money rates are enough under those of New York there is a motive to draw and sell bankers' long sterling in New York (compare Chapter XII). These so-called "finance bills" convert into a supply of sight sterling. Sight sterling to the amount of the proceeds of the discount of these bills in London is regularly drawn and sold in New York. A sufficient elevation of the London discount rates will put a stop to the drawing of finance bills and thus cut off from our market any element in the supply of sight sterling that flows from them. So far as this influence goes, then, and when it is operative, it tends to raise the rate for sight sterling or to prevent its falling, this by restricting supply.

Finance bills falling due in London are sometimes met by the drawing and sale of new ones on this side. A rise in the London discount rate tends to check such renewals, and thus once again operates to raise or to sustain the sight rate. When a finance bill falls due and is not renewed (replaced would be the more accurate word) the company drawing it will have to go into the market on this side to purchase sight bills for cover. But if the renewal takes place this purchase is either avoided or the element of demand which it constitutes is offset by a new and equal element of supply. If the elevation of discounts in London

prevents these renewals it has the effect of precipitating these elements of demand in our exchange market and thus works in the direction of a high rate for sight sterling. In fact, if London has recallable funds placed out in any manner in the New York money market, high money rates in London tend to produce the return of them to England, and this return will engender an extra demand for sight sterling as a means of transfer of the funds home.[27]

(3) If London money rates are high enough, more particularly if they are higher than our own, they tend to produce the lending of funds in England by American banking institutions. Any transfer of funds thither for this purpose requires purchases of sight sterling (or its equivalent) and thus an added element of demand for this kind of exchange is brought into being, which tends to raise or sustain the rate.

In sum then, for London to elevate its discount rates tends at the time to restrict the supply of and increase the demand for sight sterling in our market. If the rate for this kind of exchange is already high, standing let us say at 4.87, this influence may be enough to draw it up over the gold export point and produce a flow of the metal to England. If the rate is low and falling towards the import point, the influence may work to prevent it reaching this point and thus save London from a gold outflow. If this outflow would prove embarrassing at the moment, the weapon might be used to prevent it.

It is not possible to lay down a very significant general rule regarding the strength or potency of the remedy. If the commercial and financial forces or tendencies resident in what we may call the natural situation are working in the direction of drawing gold from London, resist-

[27] If cables or long bills should be bought as a means of transfer, the same effect upon the sight rates will be worked indirectly as if sight bills themselves were asked for.

ance may be put up by the manipulation of the discount rates of that city. The effectiveness of the resistance depends on the strength of the natural pull and there is no particular way open to us to define this quantitatively or to measure it. It will be enough to say that the remedy is really in practice a very potent one. That it has much greater force when employed by England than by any other country at present depends simply on the fact that it is London alone which discounts long bills drawn upon itself in vast quantities from all over the world and which therefore has the power by checking this accommodation to precipitate a demand for sight exchange upon itself which may send gold hurrying to it. In short London is in the position of a money lender with an immense short-term loan fund placed in other countries, which is in large part virtually though not literally out on call. London is a short-term international creditor. It has been for years the only exemplar of a city holding such a position. Cities not holding a similar position cannot use London's remedy for a gold drain with the same effect. Take Berlin before the war. It could not precipitate an immense demand for sight marks in other countries by raising its discount rates. To save itself from embarrassment it (or more particularly the Reichsbank) made a practice of holding a good quantity of foreign bills, that is bills maturing in and payable in money capitals foreign to Germany. By realizing upon these in the cities where they were payable and using the proceeds to buy mark exchange, the price of sight exchange on Germany could be favorably influenced on occasion. To the extent to which the German bank held these foreign bills it was a creditor at short term of other countries and could use its position as such to defend itself from a gold drain. But Berlin did not have technically quite the same weapon as London and its strength was small as compared with

London's. London does not operate by holding bills drawn on and payable in other money capitals.

The foregoing statement might prove misleading if we should fail to couple with it the admission that other monetary capitals than London can assuredly exert a certain degree of influence upon the exchanges by the elevation of their discount rates. The weapon is probably more effective, under their circumstances, for defensive than for offensive purposes. They can use it to better advantage to resist withdrawals of gold than to induce its inflow. When any other city develops the business of discounting foreign-drawn long bills to something like the colossal proportions to which London has driven it, it will be able to use London's remedy with something like London's results. The following answers for the Reichsbank express the opinion of leading German bankers.[28]

Q. What steps do you take to increase your gold reserve or to protect it?

A. We always have a large amount of bills of exchange payable in foreign countries, payable in gold.

Q. What amount of foreign bills did you have on December 31?

A. It was very small at the end of the year, but before it was much greater.

Q. You must have taken some steps to add to your gold at that time. What steps did you take?

A. We increased the rate of discount. We consider that this measure is the only effective one.

Q. How high was the rate at that time?

A. Seven and one-half per cent.

Q. If this increase had not been sufficient, you would have further increased the rate?

A. Yes.

§ 145. Manipulation of the price of gold.—It is on occasion open to the central bank of a European country to

[28] "Interviews," etc., pp. 356–7.

make use of that certain limited control it has over the price of gold, to influence the national gold movement. Except in a country on the limping gold-standard (for example France), this is necessarily a less potent remedy than manipulation of the discount rate, and as already intimated, contrasts with the latter in that it affects not the rates of exchange but rather the gold-points in these rates. By the *price of gold* we mean of course the quantity of the money of any given country that can be procured in exchange for an ounce or other physical unit of gold metal.[29] We have already seen that, even in a gold-standard country, this price may undergo slight variations, owing principally to the effects of the two technical factors (1) the charge for converting bullion into coin and (2) tolerance (whether for error in minting or for abrasion in circulation).

Further explanations can be given most conveniently in the form of a discussion of the management of the price of gold by the Bank of England. It is not only a matter of common knowledge that this institution does at times change its buying as well as its selling price for gold, but we have its semi-official statement to this effect in "Interviews," etc. (already cited) as follows:

Q. What are the provisions of law with reference to the purchase of gold by the bank?

A. Under the act of 1844 all persons are entitled to demand notes in exchange for bar gold at the rate of £3 17s. 9d. per ounce standard, subject to such gold being melted and assayed at the expense of the seller by persons approved by the bank.

Q. What is the usual price paid by the bank for gold purchases?

A. (See answer to previous question.)

Q. Does the bank under some conditions advance its rate for gold purchases?

[29] Such as the £3 17s. 9d. for an ounce of $11\frac{1}{12}$ths fine always procurable at the Bank of England as a minimum. Compare Chapter XVI, and also § 131.

A. Yes.

Q. Under what circumstances and to what extent does the bank charge a premium for gold bullion or foreign coin?

A. When there is a demand for either gold bullion or foreign coin for export to another country the bank follows the same rule as the seller of any ordinary commodity.

The German Reichsbank has also made it a practice at times to raise its buying price for foreign coin as an auxiliary measure to attract gold. The following is from "Interviews," page 357. A vice-president and a director of the Reichsbank are responsible for the answers given.

Q. Are there any other steps taken to increase the import [of gold]?

A. Well, besides granting loans without interest on gold imports, we may raise . . . our tariff for the purchase of foreign gold coins, as the Bank of England does.

Q. Pay a higher price?

A. Yes; but this is not important. The real remedy is to raise the rate of discount, besides selling a certain amount of foreign bills.[30]

The Bank of France has customarily placed a greater reliance in raising the price of gold than any other central bank. Section 146 will deal in particular with this subject.

Let us now suppose that the Bank of England wishes to restrain an actual or an impending outflow of gold to New York, by the method of raising its asking price for gold bars or American or other foreign gold coin which it may hold. Disregarding the defense it may make by means of its discount rate, we are to consider the nature and limitations of this distinct and secondary remedy. In the first place *when England's gold standard is truly operative* and when banking conditions are normal, any one having a valid check on or a deposit in a bank may procure therefor

[30] The foreign bills referred to are those payable and discountable in foreign gold standard countries, in which the Reichsbank made it a policy to keep a revolving fund invested. *Cf.* p. 556 above.

British legal tender. For any sizable amount this will have to be Bank of England Notes or British gold coin (to which we must add since the war began, the National Currency Notes which are redeemable in gold coin). The Bank of England notes as well being redeemable in gold coin, it is under normal conditions possible to convert "money" in hand or in a bank into gold, at the rate of one sovereign (the one pound coin) to the pound sterling of "money" of any other kind.

In practice the *maximum* cost of gold obtained in this manner will be something in the neighborhood of £3 18s. 0½d. per ounce 11/12 fine, and the *minimum* cost will be about £3. 17s. 10½d. If the sovereigns procured averaged the exact weight and fineness provided by law for a new sovereign, the cost would necessarily be £3 17s. 10½d. and no more: this for reasons already explained (*cf.* page 496). But because of the tolerance by law, as a practical necessity, of small deficiencies in the gold contents of sovereigns, whether caused by error in minting or by abrasion in circulation, it is possible that the coin actually obtained may be on the average .2 or .3 of 1% short in weight, so that the cost of the metal they contain would amount to about £3 18s. 0½d. of currency.[31] When any one demands sovereigns from the Bank of England, that institution owes him the duty of paying in coin that retain its legal tender power. It can readily discharge this duty by delivering sovereigns on the average say ⅛ of 1% short in weight. The person in question would probably not fare enough better by collecting sovereigns from the gen-

[31] A sovereign may weigh so little as 122.5 grains gross and retain its full legal tender power. This, compared with the statutory full weight of 123.27 + grains gross, shows a shortage of more than .6 of 1%. The British mint (acting on the rule followed by all mints) exchanges new sovereigns for bullion at a rate set on the theory that the sovereigns are exactly of full weight, thus at the rate of £3 17s. 10½ d. per ounce 11/12ths fine. Compare § 131.

eral circulation to pay for the trouble, to say nothing of the difficulty in getting together in this manner enough gold for a shipment.

Gold *bars* may usually be had in the London market for less than £3 18s. 0½d., being in fact often procurable at £3 17s. 9d., the Bank's minimum buying price, but the fact that England is on the gold standard [32] is of itself not a guaranty that they can be obtained cheaper than £3 18s. plus. Thus at times, when the market is not well supplied with bars, the Bank may easily force the intending exporter of the metal to pay this higher figure.

The gold reserve held by the issue department of the Bank of England to redeem its notes consists not only in legal tender sovereigns but also in large quantities of bars and foreign coin. If necessary, the latter could be taken to the mint for conversion into sovereigns, but often an exporter of gold who presents notes for redemption will be glad to take bars or foreign coin, especially coin of the country to which he proposes to make a shipment. This gold is not legal tender money of England. Its delivery to the person offering notes is not strictly speaking redemption of these notes but is really a sale of a commodity for them. Legally the price of this commodity is purely a matter of bargain between the bank and this person, though of course if the latter accepts the bank's figure and surrenders the notes, these instruments may then be treated as redeemed and may be cancelled. What we have been concerned to show is that there is an economic rather than a legal upper limit upon the bank's asking price. This is the £3 18s. 0½d. just mentioned. If the bank demands more than this per ounce of bars 11/12 fine, the note holder will immediately exercise his option to demand legal tender sovereigns by way of a genuine and technical redemption, and so secure gold at about this cost.

[32] Speaking as if the return to pre-war conditions were assured.

Assume that the rate for sterling exchange has fallen in New York to the ordinary gold-import point, and that London agents of American bankers are making inquiry at the Bank of England. This institution may now, if it chooses, exercise its right to demand better than the mint price for the purpose of restraining or delaying the export, and perhaps bars cannot be had in the market any cheaper than from it. If the influences depressing sterling in New York are strong enough, the rate may continue on downward until the obstruction set up by the Bank is overcome. For this obstruction consists merely in the establishment at New York of a lower gold-import point than the ordinary one. Should the rate of exchange actually descend to this lower point shipments at a profit become as feasible as ever. This is only to say that the higher the cost of gold metal in London in exchange for British currency, the lower must be the price (in U. S. money) at which the shipper can buy a pound of sterling sight draft in New York in order to engineer the transfer of gold at a profit.

To illustrate, suppose a New York bank arranged for a shipment from London of bars with a content of 50,000 ounces of British standard gold. The bars may actually be "mint fine," that is perhaps .9995 fine. If so they will not weigh 50,000 ounces but the pure gold in them will be enough to make that weight of bullion 11/12 fine. Assuming incidental costs at rates prevailing some time before the war, the following account of the operation may be made up.[33]

	Price Paid in London Per Ounce 11/12ths Fine	
	£3 17s. 9d.	£3 18s. 0½d.
Cost of gold in London ..... (50,000 × the price)	£194,275.	..... £195,104⅙

[33] For explanation of the principles of this computation *see* § 139.

	Price Paid in London Per Ounce 11/12ths Fine		
Incidentals paid in London:	£3 17s. 9d.		£3 18s. 0½d.
Packing and cartage	10.	.....	10.
Freight (3/16 of 1% of value).	364.	.....	365.
Insurance (1/20 of 1% of value)	97.	.....	97.
Total Sterling Outlay	£194,846.	.....	£195,576.
Proceeds in New York:			
45,833⅓ ounces fine gold sold to Assay office @ $20.67183.	£947,458.87	.....	£947,458.87
Less charge for copper [34]	41.40	.....	41.40
Net worth on arrival in N. Y.	£947,417.47	.....	£947,417.47
Present worth of same say 20 days prior, interest at say 4%	945,317.00	.....	945,317.00
No-profit gold import point in sight rate.			
(1) 945,317 ÷ 194,846	4.8516		
(2) 945,317 ÷ 195,576			4.8335

Summary:

N. Y. gold-import point at extreme low price of gold in London	4.8515
Same, at extreme high price	4.8335
Difference	.0180

Gold cannot always be procured in London at the legal minimum price. Again the buyer will not often have to pay the maximum. But the foregoing reckoning shows that a rise in the London quotations from extreme low to extreme high will drive down the American gold-import point almost 2¢ per pound sterling.

Conditions may easily arise under which the Bank of

[34] For method of computing compare § 130.

England would have the power through management of the price of gold to depress our gold-import point by 1¢ or more. As a remedy for a gold outflow such a measure cannot be very far-reaching, since the influences which drive the sight sterling rate in New York down to our higher import-point might well continue to be operative until the lower point is reached and gold actually pours in. But the Bank of England always has the chance that these influences will exhaust or partly exhaust themselves meanwhile. There is a chance to postpone the gold flow and even some chance to prevent it altogether. As the rate for sight bills on London falls toward the lower point, 4.8315 (or 4.83, allowing 15 points for profit) the demand for this form of exchange is likely to expand. This expansion of demand, coming from various sources, might have sufficient force to prevent the rate's actually reaching 4.83.

So much for management of the price of gold to restrict or prevent the outflow of the metal from London. Similar tactics may be employed to stimulate inflow. By raising its buying price for bars or foreign coin the bank has the power to *lower* the *gold-export* point at New York. If sterling has approached the ordinary gold-export point on our side but seems unable to rise quite to it, the Bank of England may, if it desires especially to secure the metal, contrive to bring the gold-point down to the rate of exchange. Compare the table of export-points presented on page 530. The Bank of England appears never itself to have offered better than £3 17s. 10½d. per British standard ounce, at least prior to the war.[35] But the price in the open market has been known to go 2d. higher than this.[36]

[35] *Cf.* p. 504. This is the full mint price, and is 1½d. above the Bank's legal minimum buying price.

[36] The influences determining the upper and lower limits of the price of gold in London were discussed in §§ 131 and 132, as well as in the present section.

§ **146. The gold-premium policy of the Bank of France.**— What has long been known as the "gold-premium policy of the Bank of France" is but the policy of charging a high price for gold, under a different name. There are, however, certain special features in the practice of the French central bank which call for discussion. These arise out of the fact that France is on the limping gold-standard (compare § 124). Neither the United States which also remains on this standard, nor Germany which was on it until 1907, have made use of the special opportunities which it affords for charging a premium for gold. There have been times in New York since the resumption of specie payments (1878) when gold was for a brief period at a premium, but these have not been cases where it was at a premium as compared with silver coin or any other forms of money issued by or under the authority of our government, but cases where all kinds of money were equally at a premium compared with bank credit. These were times of temporary suspension of full and free cash payments by the banks generally.

Under the law the Bank of France may redeem its notes either in French gold coin, or in silver 5 franc pieces, which also possess unlimited legal tender power. There is no provision of French law requiring the redemption of the latter in gold, whether at government offices or at the Bank of France itself. It is, as we have already learned, the combination of these two features in a monetary system that gives rise to what has been dubbed the "limping gold standard." When now some operator in possession of notes of the Bank of France, the common currency of larger denomination in the country, presents them to the Bank with the purpose of procuring gold for export, this institution may, if it chooses, exercise its lawful option to redeem in 5 franc pieces of silver. If it does so, it simply

refuses to let the note-holder have French gold coin which he might export with or without melting it into bars. So far this is evidently a very effective resistance to an export which would take place at the expense of the gold reserve of the Bank of France. But so far we have not encountered a premium on gold.

Having been refused gold coin of France in redemption, our note-holder may attempt to bargain with the bank with a view to procuring *gold bars* or *foreign coin* in return for notes, at some figure above the mint price. In other words he may offer a premium for gold, and the Bank may let him have it at a premium. If so it puts its gold-premium policy into effect. From certain briefer explanations of this matter to be found in various texts on money, it is left open to a reader to infer that the Bank will pay over French gold coin at a premium when encashing its notes, and thus redeem these instruments at a discount in one of the legal tender moneys of France. Such an inference would be a mistake. The Bank avoids this technical offense. The gold which it offers to exchange at a premium for notes, is always bar-gold or foreign coin, and thus commodity gold. Any person or bank in any country may ask what he or it please for the gold commodity.

Outright refusal to give up French gold coin in redemption of notes or payment of deposits, when the gold is to be exported, in itself constitutes a very effective remedy indeed against a gold drain. But the Bank has not liked to let the matter rest at this point, because to do so would put France definitively and clearly off the gold standard. At least this is a fair inference as to its state of mind. Therefore it offers the gold commodity at a premium. This premium has been characteristically slight, say from .4 to .8 of 1%. It has served to restrain gold outflow while hardly being equivalent to an abandonment of the gold standard.

It is difficult to ascertain much respecting the extent to which the Bank of France has made use of this measure. There is a flotsam and jetsam of information on the subject in the literature which touches on it, but little or nothing official or authoritative. Professor Arnaune of L'Ecole des Sciences Politiques, in his "La Monnaie, Le Credit et Le Change" (Paris, 1909) gives a brief history of the policy of the Bank in managing its discount rate and premium on gold (pp. 490–494). He states that this premium stood as high as .6 of 1% in December, 1899 (p. 492) and tells us also that under the second empire the "premium on the precious metals" reached an elevation of from 1.2 to 1.5% (p. 490). In a long and careful article on the subject written in 1901,[37] Dr. R. Rosendorff states that the Bank of France pursues its policy in a manner almost capricious, letting different applicants have gold at different premiums. To quote: "It is never easy to make out the objective of the Bank's policy at any given time, and the correspondents of German papers in Paris have often been at a loss to report this policy correctly."[38] After stating that the premium varies from .4 to .8 of 1%, he goes on, "Exact data concerning its height cannot be secured, since the official rate of premium is never made known. The items in the newspapers concerning it can lay no claim to credibility."[39] The following is an excerpt given by Rosendorff from a letter from a French banker made public in a report of the president of the German Imperial Bank to the Reichstag (1899): "When it [the Bank of France] pays in Napoleons [gold 20 franc pieces]

[37] In Conrad's "Jahrbucher fur Nationalokonomie und Statistik," III Folge, 21 Band, pp. 632–663. This is an article directly against the position of certain German publicists who recommended the adoption of the French premium-policy in Germany.

[38] *Ibid.*, p. 634.

[39] *Ibid.*, p. 635.

it never demands a premium and could not lawfully do so. In latter years it has given up Napoleons in important sums only for the payment for cotton in Egypt. Here again it has not demanded a premium. . . . The Bank sells foreign gold moneys and gold bars for a premium over its buying price, taking as a basis the price of fine gold at London.[40] . . . The Bank decides each day the sum to be released, and apportions it pro rata among the bankers according to their demands.[41]

The following from Hartley Withers' "Meaning of Money" (page 87) is an example of an English statement regarding the French system. "The Bank of France does not attempt to do the business that we regard as [international] banking, which includes readiness to meet all demands in gold. Its notes are convertible, but convertible at its option into either gold or silver, and it frequently takes advantage of this option, when it considers it undesirable to part with its gold. So that one who has a credit in Paris has a credit of no international value [sic], except in so far as he can make use of it, by means of the machinery of exchange, to buy a credit in London, which is convertible [into gold] as a matter of course." Much along the same line is the declaration in Swoboda's "Die Arbitrage" (p. 423) that "the undependableness of the bill on France has as a consequence that the Austria-Hungarian Bank does not regard bills on Paris as cover for its notes although it does so regard those on London or Berlin."

In "Interviews" etc., as already cited, page 216, we find the question and answer set forth beneath. The interview was in this case with M. Pallain, the governor of the Bank of France in office at the time (1909).

[40] This means presumably that the Bank alters its premium in accordance with the variations in the London price for gold.

[41] P. 635n.

Q. In order to discourage the exportation of gold does the Bank of France sometimes exercise the right it possesses to refuse payment in gold and to offer to pay its notes in silver?

A. The Bank of France can not, of course, renounce its right to redeem its notes in gold or in silver, since gold pieces and silver coins of 5 francs are equally legal tender in France. But it only uses this right with discretion and to the extent that it appears necessary in order to prevent an unjustifiable weakening of its reserves. In no case, however, whatever may have been said, have we ever charged any premium on French gold [42] in redemption of notes.

This statement does little to clear up our uncertainty regarding the extent to which the Bank of France follows the plan of charging a premium on gold. Prior to the war *L'Economists Francais* published an item entitled "premium on gold" in one of its weekly summary tables in its *partie financiere*. According to these tables there was but one period of three months during the years 1909 to 1913 inclusive, when there was any premium. These were the months of November and December, 1912, and January, 1913, and the maximum premium recorded was one of .2 of 1%. But we have already been warned that these published figures are purely nominal.

So far as one can tell, European bankers and publicists are agreed that some measures of control of the foreign gold movement are necessary to a central bank, that what we have here called artificial as distinguished from natural remedies must be employed. The two chief defensive systems are recognized as being (1) the discount and (2) the gold premium policies.[43] The withholding of bar gold and foreign gold coin from sale except at a relatively high price

[42] *I.e.*, French legal tender gold coin as distinguished from gold bars and foreign gold coin.

[43] *See* § 147 for certain other minor plans of influencing the gold movement.

by the Bank of England is but a limited application of the gold premium policy. The Bank of England can go only to a certain point in raising its asking prices for these forms of the gold commodity. If it goes too far sovereigns will be demanded for notes and it will lose the gold anyway. But when the outside public would resort to the similar alternative at the Bank of France the latter presents them with the full legal tender silver coin, so that its control of gold withdrawals will remain unimpaired. The one great advantage claimed for the gold-premium policy is that through it the Bank of France manages to defend its gold stock without making frequent or great changes in its discount rate. There have been times when the Bank of France has had to raise its discount rate in addition to placing a premium on gold. The gold-premium policy cannot be regarded in the light of history as all-sufficient. On the other hand those who would treat it as a failure because forsooth the Bank of France has sometimes been forced to raise its rate of discount are manifesting an extraordinary prejudice. In point of fact the discount rate of the Bank of France has exhibited a stability unrivaled by that of any other central bank and has stood at an average below that of the German or the English central bank. The exhaustive statistical studies of European bank rates published by R. H. Inglis Palgrave in his "Bank Rate and the Money Market" come down to the year 1900 inclusive. A table on page 196 of this book shows that the total number of changes in the discount rate of the central banks were as follows:

	1881–1900	1844–1900
In England	129	400
In Germany	63	116
In Belgium	57	173
In Holland	45	173
In France	21	111

Not only have variations in the rate of the Bank of France been less numerous but they have not been so wide as in the case of other central banks.[44] The rate of the Bank of France has maintained its lead with respect to stability on a generally low level from 1900 to the present time. It is not surprising that there have been German writers who have wondered whether German industry and commerce could not secure benefits of the same character by having the same system adopted.[45]

It is of course impossible to tell just how much more variable the discount rate of the Bank of France would have had to be if the gold-premium policy had never been followed. It would hardly seem possible to estimate with any precision what its results would be if transferred to Germany. But it is safe to state that it would be unsuitable for employment in a country with the position which England holds in international commerce and banking. Its employment would in the first place tend rapidly to undermine the very position which England has gained, and secondly it would beyond a doubt prove totally inadequate to withstand such drains as England is subjected to while in that position. Propositions of this character are not susceptible of a rigid and unanswerable demonstration, but as a matter of judgment there can be little doubt of these particular statements.

While the gold-premium policy is doubtless in large part responsible for the stability of the discount rate in France, and is to be credited with its share of this benefit, it is not without its drawback. When put in force it operates to raise the gold-export point thus permitting the rates of exchange on other gold countries to ascend to greater

[44] *See* numerous tables in Chapters XIX and XX of Palgrave's work.

[45] It was against the notions of these men that the article by Rosendorff, previously cited, was directed.

heights than they would otherwise. Thus the higher the price in francs of a check for an English pound or an American dollar, the greater the cost in francs to the French of articles imported from these countries. The premium policy saves the French business world from certain fluctuations in the discount rate, but whenever it is actually effective, that is, actually operative to restrain gold export, it results in a greater depreciation in the purchasing power of the franc over foreign moneys, and thus over foreign commodities, than would otherwise be experienced. In general a premium of ½%, if effective in the sense just explained, would presumably add ½ of 1% to the cost of goods imported during the time of its sway. Though there are French critics of the policy, probably it is well thought of by the majority of publicists and financiers of the country. It would seem difficult to prove that the losses which it involves are more important than the gains. It would be unsuitable for England (waiving the fact that it would be impossible under present English law) and it would be unwise for the United States to adopt it—not that it has ever been proposed in this country. Some critics have made the point against the French system that while it protects the gold reserve of the central bank, it often forces exporters of the metal to gather it from the general circulation (at a cost of course). Some seem to think that in some fundamental manner this is very harmful. In the judgment of the present writer there is little in this point.

§ 147. Further methods of influencing the gold movement. —A measure which has on occasion been employed by European central banks to expedite gold import is the making of interest-free advances against the metal at the time when it is shipped from another country. This practice has often been remarked by financial writers, but it is most satisfactory to quote the evidence of its existence from the semi-official statements made in the National Mone-

tary Commissions *Interviews* etc., which has been mentioned a number of times before in these pages. At page 28 of this publication, the following occurs.

Q. [To representatives of the Bank of England.] It is customary at such times [times of crisis] to advance money without interest to importers of gold to cover the time required in transportation?

A. At such times facilities for bringing gold have been given in the shape of free advances during transit, adequate security having been lodged.

In the interview with the governor of the Bank of France we find this (page 214).

Q. What measures are taken by the Bank of France if it wishes to increase its stock of gold or to stimulate the importation of gold?

A. The importation of gold does not need to be stimulated in France. It takes place naturally under the influence of the position of a creditor which France always holds toward the principal foreign markets. Certain intermediaries have sometimes asked us to facilitate their operations of arbitrage in precious metals by advancing money without interest for the time required in transportation. We have done so several times by crediting the importers from the day of shipment, but this operation, which has its limits in its own conditions, can not be considered as a premium for importation. Such premiums, we repeat, would be useless, in consideration of the current importation which normally overabundantly supplies the French market.

In certain respects the foregoing seems a trifle disingenuous. The question below was directed to the representatives of the German Reichsbank (see page 357).

Q. Do you also loan money without interest to people who are importing gold?

A. Yes, that is done. We make advances without interest to importers for the time the gold is in transit; we do that even in times when the ordinary gold import point is not reached.

If the exchange rates are close to the point of bringing about an inflow of gold into one of these countries, it is evident that an interest-free advance upon a consignment of the metal might well superinduce the movement. Take as an illustration a shipment from New York to Paris. The effect of the advance is to give the shipper his full proceeds in Paris on the day the gold leaves New York, without interest cost. If the shipment is made by a New York house, the latter might realize upon this special benefit by selling cables on Paris on the day of export instead of sight drafts, thus making the extra dollars that come from selling this higher priced form of exchange. Without the advance this would entail an overdraft in Paris. If on the other hand the fund to be produced in Paris is designed for employment there, the gain will take the shape of an extra week's interest upon the same. If the shipment is engineered in Paris and is made against a purchase of New York exchange, the gain takes the form simply of a week's earlier return of the francs laid out for that exchange.

The interest-free advance on gold shipments does not directly affect the rate of exchange but affects the point in the rate at which gold will move. Another policy—which may in brief be called "the foreign bill policy"—should be mentioned in its proper order at this place. This is the plan adopted by some central banks of carrying among their assets a substantial volume of bills of exchange payable in and discountable in a foreign gold-standard country, or in a number of such countries. So fast as these bills mature the proceeds which they yield may be reinvested in similar paper, and thus a revolving fund may be kept employed, though its quantity or value may naturally be permitted to vary with circumstances. The interest earnings of such a fund depend primarily upon the rates of discount prevailing in the countries upon which the

bills carried in it are drawn, and if these earnings are below those procurable in purchases of equally secure domestic paper, the fund is carried at a greater or less sacrifice. Its advantage lies in its availability as an instrument for regulating or "correcting" the exchanges. The fund's adequacy as a weapon will vary with its size. Not to go into historical or statistical detail, we may obtain an illustration if (disregarding the war) we suppose the German Reichsbank to be carrying £2,000,000 of bills on England. The rates of exchange between Germany and England are approaching the point where gold will be sought in Germany for export to England. If the Reichsbank desires to avert this, it is possible it will be able to do so by drawing on its reservoir of sterling bills, though this depends on the strength of the underlying influences which work towards making the exchanges "unfavorable" to Germany. The *modus operandi* is simple. The bank discounts in the course of several days enough of these bills to yield it a credit of say £500,000 in London. Viewed from the Berlin end, it is because sterling exchange is getting too dear in Germany that gold export threatens. The remedy may be applied in Berlin by selling sight sterling there against the London credit which has just been made available. If these sales are in sufficient volume they prevent the exchange rate from reaching the gold-export point. Viewed from the London end, the threat to Germany's gold stock comes from exchange on Berlin being too cheap. The Reichsbank can if it chooses operate as well in London, by using some of the released sterling credit to purchase bills on Berlin and sustain the rate, or prevent its reaching England's gold-import point. Arbitrage being possible, the two methods are virtually equivalent, but insomuch as Berlin deals in exchange on London much more extensively than does London in exchange on Berlin, it is more plausible to suppose the Reichsbank to

operate by selling extra sterling in Germany. By drawing on its reserve of sterling bills it may merely retard gold withdrawals or may avoid them altogether. Subsequently when exchange has righted itself, the bank may begin buying long sterling again to replenish its store. This in and of itself tends to produce gold export from Germany but this result is avoidable if the underlying conditions of the exchanges are favorable at the time when the replenishment is accomplished.

In case it is the exchange rate between Germany and France that threatens a gold flow from Berlin, the Reichsbank's drawing upon its reservoir of sterling bills will still serve as a remedy. It might sell sterling in Paris. This would give it surplus credits in that center and enable it to better the exchanges between Paris and Berlin either (1) by purchasing mark-exchange in Paris, or (2) by selling franc-exchange in Berlin. The Reichsbank could get its results even by the method of selling sterling in Berlin. This would lower the value of sterling in terms of marks, and by reason of arbitrage would necessarily work in the direction of lowering the value of francs in terms of marks as well. It is to be supposed however that the Bank would not leave much to arbitrage, since it would obtain the maximum for itself from selling out its sterling in that manner which would forestall the arbitrage operations by reason of virtually including them.[46]

Under the conditions prevailing before the great war, the institution placing the greatest reliance in the *foreign bill policy* was the Austro-Hungarian Bank.[47]

[46] For instance, if following a sale of sterling in Berlin by the Reichsbank there should be a buying of this sterling there by an arbitrager and sale of it by him in Paris, the Reichsbank could better sell sterling in Paris itself.

[47] The *Economic Journal* (English) for 1909 contains an article by Ludwig v. Mises on "the foreign exchange policy of the Austro-Hungarian Bank." Vol. 19, pp. 201–11.

It remains to speak of what may be called mere moral suasion as a check upon gold export. What follows is quoted from Mr. Hartley Withers' "Money Changing" (beginning on page 37).

* * * the point [in the rate of exchange] at which it pays to send gold to London [from Berlin] is theoretically 20 marks 48 pfennigs. But in November, 1912, London ought to have been drawing gold freely from Austria and Russia also, but not a shillingsworth arrived. The *Statist* of November 16 made the following observations:—

"As a matter of course, the exchanges continue to be as unfavorable to Germany, Austria-Hungary, and Russia as they have been for a considerable time now. And equally as a matter of course, gold is not withdrawn from the State banks and shipped abroad. . . . All this shows what remarkable power the State banks exercise each in its own country. And it shows, likewise, how very inadequate is the treatment of financial subjects by economists in general. If men always acted in accordance with their pecuniary interests gold would be pouring out from Russia, Germany, and Austria-Hungary at present. But the Governments of the three States have set their faces against such exports. The State banks in each case support the policy of the Government, and the subjects are all afraid to incur the displeasure of the great Governments and powerful institutions. What is still more to the point, foreign bankers and merchants do not dare to take gold from any of the three States. They, likewise, could make a profit if they knew how to get gold out of the State banks. But either they are incapable of inventing any method that would force the banks to give the metal, or they are in too much dread of the Governments to incur their displeasure."

Thus it appears that the theoretical doctrine, which lays it down that the rates of exchange cannot move beyond the point at which it pays better to ship gold than buy a draft, is only borne out where there is a free market in gold, and a claim for money carries with it an unquestionable right to immediate payment in gold.

In "Interviews," etc., as before cited, the question and answer given below, appear on pages 413 and 414.

Q. [To the Dresdner Bank.] In times of trouble do the large banks, like your own, the Deutsche Bank, and Disconto, cooperate with the Reichsbank in an endeavor to prevent the exportation of gold?

A. Yes. Opinions are divided as to whether it is for the good of our country to do so or not. Last year, for instance, many people asked for gold. It was refused at first in some quarters; later we shipped freely.

In the same publication there appears also the following (at page 358), which is reproduced as a matter of interest:

Q. Do you take any steps to prevent exports of gold? We have been told that it is the habit of the Reichsbank, in case of large exports of gold from Germany, to suggest to other banks that it is not agreeable to have the gold exported.

A. It has never been the case and never will be the case that such suggestion has been made by the Reichsbank to anybody. If it happened during the last crisis that some of the banks refused to export gold, that was done for wrongly understood patriotic reasons. The Reichsbank is not in favor of such measures and it is very sure that such a thing will not happen again. We consider this measure absolutely wrong. It was done in spite of the Reichsbank. After it happened the Reichsbank approached the other banks, expressing the wish that it should not happen again.

It must be conceded there are times in practical life when gold does not flow out of certain lands regarded as gold-standard countries, even when its export would pay as an exchange operation. We conclude that the theory of the gold-points explain what happens, and why it happens when exchange operations are *freely conducted* on a gold basis. Usually gold flows from leading gold countries when the gold export points are reached. This observation holds especially of England and the United States.

CHAPTER XXI

THE THEORY OF EXCHANGE RATES

§ 148. Supply and demand and the rate.—By a "theory" of a rate or value we mean in economics merely a general explanation of the influences or factors which govern that rate or value. The law of supply and demand will be found to play some rôle in all theories of economic values or rates, but commonly other elements as well are present, such as principles of utility and of cost. In the case of exchange, however, the explanation from supply and demand constitutes the whole theory of rates, for an exchange rate is merely a sum of money laid down to buy a claim to another sum of money (payable it is true as a regular thing at another time or in another place). The demand for exchange does not come from any "subjective" value possessed by that article explicable, for instance, in accordance with the principles of marginal utility, and the supply of exchange is not checked or determined in any way either by a subjective or an entrepreneur's cost of production. The theory of the exchange rate based on supply and demand is, however, not without its complexities.

The word *supply* is to be taken as meaning simply the quantity of a thing offered for sale on the market. When the thing is a material good, its supply is measured in physical units, as, for instance, bushels of wheat. But when the thing is, instead, a claim to money, as in the case of investment bonds and ordinary negotiable instruments, the quantity of supply is measured in terms of *value,* that is to say, of "nominal" or "face" value. The nominal value of any contractual claim for money is the quantity

of money into which it is convertible at maturity according to its terms. This nominal value is, of course, a distinct thing from its actual market price. A sixty-day bill of exchange (which is physically, by the way, say 32 square inches of paper), may have a nominal value of £1,000, and a market price of $4,830 in New York and of £990 later on in London. It constitutes, however, a supply of £1,000 of sixty-day exchange. In our discussion we shall take the *demand* for an article to signify the desire to obtain it existing on the part of persons with the means to purchase it.[1]

One form in which the principle of supply and demand is sometimes stated is that, other things remaining the same, the greater the supply of a thing offered upon the market the lower its price (and *vice versa*), and the greater the demand for a thing the higher its price (and *vice versa*). But the relations existing between supply and demand and price can be stated in a more definite formula, giving us what is known as the principle of the "equilibrium of supply and demand." This principle is that the market price of an article seeks the point which will make the *volume* of the article *supplied* and the *volume demanded* come to an equality. To illustrate, suppose the rate for bankers' sight drafts in the New York market remained about 4.85 during a day, and that in the day £1,000,000 of these drafts were offered for sale and accepted by purchasers. If the price had been 4.86 instead of 4.85, *without there being any other changes in the underlying conditions of exchange supply and demand than those caused by this price change,* we know perfectly well the *volume*

[1] And thus we do not use the term to designate the different, though related thing, the quantity of the article which will be taken off the market at a given price by the body of purchasers. The latter is, however, the set definition of "demand" often given in modern treatises on economics.

offered on the market would have exceeded the *volume demanded.* Thus, with a rate of 4.86 perhaps £1,500,000 of drafts might be seeking sale while there might be bids for only £750,000. For, other things remaining the same (*i.e.*, no other original cause of change entering in), a rise in price calls out a greater volume of supply (and *vice versa*), and a rise of price decreases the *volume demanded* (and *vice versa*).[2] If market price chances to get to a figure so high that it makes the volume of bills seeking sale exceed the volume which is demanded at that figure, the price tends to fall. On the other hand, if the price happens to be at a point so low that it makes the requests for bills exceed the offers, the price tends to rise. But if the price is at the figure which just equalizes the volume supplied and demanded, it has no tendency to move one way or the other until a change in underlying conditions takes place. Thus we consider the price which equalizes bids and offers to be in a state of "equilibrium" for the time being. We also speak of it as just "clearing" the market.

To illustrate our meaning further, suppose that at a time when the market rate for bankers' demand drafts is 4.85, the volumes of drafts which would be supplied and demanded at other rates (if these other rates should happen to be made), would be as indicated below:

Volume Supplied	Price	Volume Demanded
£1,300,000	4.86	£ 825,000
1,150,000	4.8550	900,000
1,000,000	4.85	1,000,000
900,000	4.8450	1,100,000
800,000	4.84	1,250,000

[2] The volumes supplied and demanded are, speaking with precision, rates of inflow and offtake in the market; that is, they are such and such quantities per day, per week, or for some other unit of time.

We are assuming that what actually happens on this given day is that £1,000,000 of drafts change hands at a rate of 4.85. There would never be a way of knowing what the volume of offers or of inquiries would actually have been on the same day, under the same underlying conditions, if other market rates had prevailed. And so the figures given are by very nature suppositious. But some figures would necessarily hold good on a given day, and the point is that the direction of their changes would be as indicated in our table. That is, the higher the rate, the greater the volume of offers would be, and the less the volume of inquiries (and *vice versa*). The table of the volume that would be supplied at each given rate or price is called a "supply schedule," the table of the volume that would be demanded, a "demand schedule." What these schedules actually are at any time, is determined by what we have designated the "underlying conditions" of supply and demand, that is, primarily the conditions of international trade in merchandise and securities and the conditions of short term international borrowing and lending. A change of underlying conditions will, of course, shift the supply and demand schedules. Thus a given change might shift the demand schedule from the position shown above to another one, as indicated beneath:

Price	Demand Schedule Under First Set of Conditions	Demand Schedule Under Second Set of Conditions
4.86	£ 825,000	£1,000,000
4.8550	900,000	1,150,000
4.85	1,000,000	1,300,000
4.8450	1,100,000	1,500,000
4.84	1,250,000	1,750,000

The principle of supply and demand is the affirmation that the supply and demand schedules being what they are,

the market price tends to reach that figure which will make equal the volume supplied and the volume demanded, or the volume of the offers and the bids. If, for instance, the supply and demand schedules for bankers' sight sterling were to-day those first given (*see* page 580), then the center of oscillation of the market rate would be 4.85, or the market rate would tend to rest at 4.85. For if it maintained itself at a higher figure, as at 4.86, the offers would, as indicated in the tables, come in the course of the day to exceed the requests by £475,000 of bills. There will always be some sellers who would rather cut a price than be unable to make a sale, and as long as the price is such that there is bound to be a body of unsatisfied sellers, there is an insistent tendency for that price to fall. At 4.84, on the other hand, there would be an unsatisfied inquiry for £450,000 of bills. So the price would be bid up from this figure because some buyers will always be in a position to pay more rather than go without the article sought. But if the actual market price reaches the figure of 4.85, namely the figure which will at the time make the volumes supplied and demanded come to an equality, the price then neither tends to be bid upward nor downward. At 4.85 the amounts supplied and demanded would both be £1,000,000, and the price would tend to rest here until a change in underlying conditions alters the supply and demand schedules. In point of fact, some change in underlying conditions, or some change in the speculative forecast of these conditions, is practically always at work making alterations in these schedules. Consequently, the market price for any given class of bills is generally on the move. It is forever seeking and following the moving point which will clear the market under shifting conditions.

§ 149. **The manner in which "supply and demand regulates" a rate.**—The explanation from supply and demand

just given has the appearance of being circular. The general law is that price depends on supply and demand, and yet has it not been argued that the volume supplied and demanded depends on price? There is, however, no real circle in the reasoning. It is true, both the volume supplied and the volume demanded depend on price, but they depend only *in part* on price. What the volume supplied will be at each single price in the schedule or in the range of variation of price, depends wholly on the independent underlying conditions of the supply. And the volume demanded at any price within the entire range depends wholly on the underlying conditions of demand. Thus, although price changes *affect* the volume supplied and demanded, what the volume is that they affect depends wholly on underlying conditions. Under one set of conditions, 4.87 might make the volume of the offers and of the requests equal, and under another, 4.84 might accomplish this result. Whether it is 4.87 or 4.84 is determined by the underlying conditions of supply and demand together, and by them alone. To summarize: when we say that "supply and demand regulates" price, we mean that price is governed by the underlying conditions of supply and demand, and in the following manner: Price movements react upon the volume of bids and offers, and price necessarily seeks the point that will make these two equal, or *the point which will clear the market*, but what this point is depends wholly on the underlying conditions of supply and demand.

§ 150. Interpretation of apparent contradictions.—It would take more space than can be devoted to this subject to consider and guard against all the possible misinterpretations to which the explanation just given is open. It is important, however, to consider one or two points in this connection. Take such a market phenomenon as a rise in an exchange rate accompanied by an increase of the volume

of dealings on the way up. Since *sales and purchases* must always be in exactly equal quantities,[3] we have here an instance where there is an expansion of the volume of exchange demanded at the very time when the rate for exchange is rising. This seems to contradict the law that the volume demanded falls off as the rate rises. It must be kept in mind, however, that this law holds only when no independent change takes place in the underlying conditions, and it was stated with this proviso. Now in point of fact every consequential movement of the exchange rate is due to a change in underlying conditions. The striking case of a sharp rise on expanded dealings is due to such a change and is consistent with the law. A sudden and great increase in the demand for exchange, in the sense of the general desire or need for it, might be caused, for example, by any events tending to increase our imports of securities or merchandise. Our importers as a body would come to need more exchange than before to settle their indebtedness abroad. This increase of demand would mean that the volume of bills which would be asked for in the open market at each and every rate of exchange would rise sharply. It would mean that a new and higher point of equalization of bids and offers, or of clearance of the market, would be established, and that the actual rise of the rate is merely a case of following up its moving "equilibrium" or equalization point under a change of underlying conditions.

To illustrate, we may suppose a change takes place in the underlying conditions of the demand but not of the supply. Making use of the supply and demand schedules already given as examples in § 148, we may construct the following table:

[3] When the stock-market reporter speaks of "heavy selling," he gives us, curiously enough, a half-suggestion that sales may exceed purchases.

Volume Supplied Under Both Sets of Conditions	Price or Rate	Volume Demanded Under the First Set of Conditions	Volume Demanded Under the Second Set of Conditions
£1,300,000	4.86	£ 825,000	£1,000,000
1,150,000	4.8550	900,000	1,150,000
1,000,000	4.85	1,000,000	1,300,000
900,000	4.8450	1,100,000	1,500,000
800,000	4.84	1,250,000	1,750,000

Under the first set of conditions the market rate would tend to settle at 4.85, at which point the volumes offered and asked for would be equal, namely £1,000,000 per day, and actual transfer would take place at the rate of £1,000,000 per day. A change in the conditions of demand intervenes and the second "demand schedule" replaces the first, the original "supply schedule" being assumed, for simplicity's sake, to remain unaltered. Putting the second demand schedule together with the original supply schedule, we see that the new equalization point in the rate for exchange will be 4.8550. At this point offers and bids will be equal, appearing in the amount of £1,150,000 per day. What will happen then under the conditions of this illustration will be an ascent of the market rate from 4.85 to 4.8550, with an increase of dealings (an increase of "activity") from the amount of £1,000,000 per day to that of £1,150,000 per day. *Under changed conditions* the volume demanded becomes greater at 4.8550 (namely £1,150,000) than it was formerly at 4.85 (namely £1,000,000). Meanwhile it remains always true that the higher the rate of exchange, *under given conditions of the demand,* the less will be the volume demanded. Thus under the second conditions of the demand, a rate of 4.86 would make the volume demanded fall to £1,000,000 instead of £1,150,000, as it would be at the rate of 4.8550.

In the foregoing illustration we have supposed the rate

of exchange to rise to an accompaniment of expanding dealings, appearing to refute the "law of demand," but in fact refuting a misconstruction of this law. On the other hand, the rate may fall to an accompaniment of contracting dealings. This shows the same kind of apparent contradiction, for it seems to refute the principle that the lower the rate goes the greater will be the volume of exchange demanded. The explanation here is the same in character as before. This movement will be due to a change in underlying conditions, and is not incompatible with a principle which states how the volume demanded will behave when no change originates in the underlying conditions themselves. *If a rate rises on expanding dealings, it is a sign that the underlying cause is an increase in the demand, in the sense of the general need for exchange. If it rises with contracting dealings, the cause is some change in underlying conditions which restricts supply,* such as a falling off of exports. The cause is one which operates to reduce the amount of exchange which would be offered on the market at any given price, and which thus brings about a decline of the whole "supply schedule.[4] It should not be assumed that these explanations take away the force of the principles of the equalization of bids and offers. It remains true under stationary, slowly changing, or rapidly changing conditions, that too high a price will make offers exceed inquiries (and *vice versa*) and price actually seeks to reach the point which will lead to an excess neither one way nor the other.

Speculation generally has the effect of bringing the force

[4] When the rate of exchange rises or falls in the market, dealings may (1) expand or (2) contract or (3) remain the same. Curiously enough, no matter whether the volume of transactions behaves in the first or second or third way, the "law of supply" or the "law of demand," or both, appear to be refuted! That is, a misconstruction of them is always refuted by any actual movement of price.

of anticipated changes in underlying conditions to bear upon the market before they actually transpire. In all cases of this character the change in rates receives its ultimate explanation in the change of conditions. It is, however, not to be denied that speculative anticipations are often mistaken. With regard to rate changes caused by mistaken speculation, it would seem that one can go no further than to make the not altogether illuminating affirmation that they are caused by mistaken speculation. However, this much may be added: when the rate is driven in a given direction by a supply of or demand for bills coming from mistaken or excessive speculative operations, the discovery of the mistake or excess when the conditions of the future actually materialize, will lead to operations which tend to correct the aberration of the rate first occasioned by the misguided speculation. We see these things in the liquidation of misguided "longs" and the covering of misguided "shorts." Sometimes the volume of the demand in a market increases as price rises, because as the thing proceeds the imitative speculators present detect, or think they detect, the evidence of "good buying" by big men and leaders. If the leaders are, in fact, buying because of correct anticipation of future conditions which will work for higher prices, we have in this instance merely an early concentration of the effects of these conditions.

We may regard the doctrine that price seeks the figure which will equalize bids and offers as the scientific explanation of the behavior of price, but it does not follow that knowledge of this principle is what is needed for shrewd dealing in foreign exchange. Quite the contrary. Ability to forecast coming changes in underlying conditions is the great requisite. For example, in the fall of the year 1912, an exchange banker must have been deeply concerned with the chances of a general European war

arising out of the crisis in the Balkan states, and in the probable effects of such war upon the securities and merchandise traffic of the United States, and through these upon the exchange market. A certain New York newspaper argued at the time for instance, that a war of this character would not be likely to cause Europeans to dump American securities upon the New York market, because Europeans would recognize that our securities are especially safe, owing to the freedom of this country from entanglement in the war. Another paper made the reply that on the contrary we should have to expect dumping in great volume, just because Europeans could get cash out of our securities. This is an example of a question concerning the future course of underlying conditions. A great discharge of foreign-held securities into the New York market would raise up a strong demand for exchange to pay for them, and thus would tend powerfully to elevate exchange rates. All the time while any great influence such as this may be working out its effect, the exchange rate, for each class of bills, would be keeping to the figure which would clear the market, but it is not this principle that is so important to the practical dealer. What he needs to know is the time when the *influence of new conditions* will hit the market, and the direction, duration and strength of the influence.

§ **151. The sources of exchange supply and demand.**—The total supply of and inquiry for exchange comes from numerous and varied sources, a conspectus of which is shown in the tables on pages 589–591 inclusive.

The ordinary transactions that give rise to exchange supply and demand fall readily into two main groups, that is, (1) commercial and (2) banking transactions. In naming the first, we use the word "commercial in its broader sense covering trade, traffic, and travel in general, and not merely the export and import of merchandise. The

CLASSIFICATION OF SOURCES

Underlying Operations of Commerce in a Broad Sense (*i.e.*—Trade, Traffic, and Travel in General)	Supply of Exchange (arising out of "national credits")	Demand for Exchange (arising out of "national debts")
COMMERCE IN MERCHANDISING.	Drafts against exports of merchandise, whether drawn directly on the consignee or upon a foreign bank under a letter of credit.	Drafts needed to pay for imports of merchandise, whether remitted directly to the foreign shipper or used to discharge an indebtedness arising out of a commercial letter of credit.
COMMERCE IN SECURITIES, GOVERNMENTAL AND PRIVATE.	Drafts against sales of bonds and stocks abroad. Drafts received in payment of interest and dividends due on foreign bonds and stocks held at home, the drafts being offered for sale on the home market.	Drafts needed to pay for bonds and stocks bought abroad. Drafts bought to pay interest and dividends on home bonds and stocks owned or held abroad.
INVESTMENTS MADE OTHERWISE THAN BY PURCHASE OF BONDS OR STOCKS.	Drafts to pay for investments made here by foreigners. Drafts against profits on foreign investments made by us otherwise	Drafts needed to pay for investments made abroad by us. Drafts needed to pay profits due foreigners on their investments

CLASSIFICATION OF SOURCES—*Continued*

Underlying Operations of Commerce in a Broad Sense (*i.e.*—Trade, Traffic, and Travel in General)	Supply of Exchange (arising out of "national credits")	Demand for Exchange (arising out of "national debts")
	than by purchase of foreign securities.	made in this country otherwise than by the purchase of our securities.
THE CARRYING TRADE.	Drafts to recover charges owed our ships by foreigners. Drafts sold to cover outlays and expenses of foreign ships in our ports.	Drafts needed to pay freight charges which we owe foreign ships. Drafts needed to pay outlays and expenses of our ships abroad.
MISCELLANEOUS BROKERS' AND AGENTS' SERVICES.	Drafts drawn to recover brokerage, commission and insurance charges due us.	Drafts needed to pay brokerage, commission and insurance charges which we owe.
FOREIGN TRAVEL AND EMIGRATION.	Drafts of foreigners on their home funds while temporarily or permanently in residence with us.	Drafts needed to pay the expenses of our travelers in foreign parts. Drafts to cover remittances of European immigrants to their dependents left at home (a special class), or drafts taken abroad by immigrants upon returning to native country.

CLASSIFICATION OF SOURCES—*Continued*

Pure Banking Operations	Supply of Exchange (arising out of "national credits")	Demand for Exchange (arising out of "national debts")
BANKING TRANSACTIONS GOVERNED PRIMARILY BY THE RELATIVE RATES OF DISCOUNT—AS BORROWING AND LENDING.	Drafts offered for sale to obtain moneys borrowed abroad. Drafts offered for sale to reduce deposit or balance abroad, or to obtain moneys formerly loaned abroad by us and now repayable to us abroad.	Drafts bought to repay moneys formerly borrowed by us abroad. Drafts bought to increase deposit or balance abroad.
ARBITRAGE TRANSACTIONS.	Drafts offered for sale as part of an arbitrage operation.	Drafts bought as part of an arbitrage operation.
DEALER'S SPECULATIONS ON FUTURE COURSE OF EXCHANGE.	Drafts offered for sale as part of a speculation in exchange.	Drafts bought as part of a speculation in exchange.
DEALER'S GOLD SHIPMENTS.	Drafts for sale against gold export.	Drafts purchased in order to import gold.
EXTRAORDINARY GOVERNMENTAL OPERATIONS		
WAR INDEMNITIES, PURCHASE OF TERRITORY, ETC. (AS PHILIPPINE INDEMNITY, PURCHASE OF PANAMA CANAL, ETC.).	Drafts against extraordinary governmental credits abroad.	Drafts bought to pay extraordinary governmental debts abroad.

distinction between the commercial and banking sources gains force from the fact that the operations of commerce are in a very true sense the fundamental governing influences in the exchange market, while the banking operations are secondary or derived.

§ 152. How national credits and debits affect the market. —A national credit may be defined as a right possessed by a resident (or by the government) of a given country to receive money from abroad. The right may be to receive a designated quantity of home money as is the case where an American sells merchandise or securities abroad for a price stated in dollars; or it may be a right to receive a specified sum of foreign money, as when any such merchandise is sold for a price stated in sterling. In the latter case the holder of the right to foreign money usually converts it into home money simply by selling foreign exchange at the existing rate in the home market. A national debit is an obligation imposed upon a resident (or the government) of a given country to pay money abroad, whether, of course, a specified amount of foreign or of home money. It should be noted a "national" credit or debit does not here signify merely a governmental or state right or obligation.

The great body of national credits and debits of a given country are produced by the commercial and banking transactions of private houses and firms. It is the simplest matter imaginable to tell whether a given transaction brings into being a national credit or a national debit, for we can always tell whether because of this transaction one of our residents stands to receive or stands to pay money. In fact, calling a right to receive money a national credit adds nothing to our information regarding the tendencies of a given commercial or banking transaction, but merely gives us a convenient name for this right.

There is a definite rule or law of the effect of national

credits and debits upon the foreign exchange market. A national credit always works out its effect on the foreign exchanges in one of the three following ways:

(1) It increases the supply of foreign exchange for sale in the home market (without exerting a direct influence upon the supply of or demand for bills in the exchange market of the other country).
(2) Or it exerts no direct effect upon the home market but instead increases the demand for bills in the market of the foreign country, acting in the capacity of a national debit there (the national credit of one country being, of course, always the national debit of some other).
(3) Or a national credit may act both to increase the supply of foreign exchange in the home market and to increase the demand for foreign exchange in the other country's market. (A national credit has both these effects whenever settlement is arranged for under a commercial letter of credit authorizing drafts on a third country; or whenever the exporter draws on the importer for money of a third country.) (Compare §§ 39 and 71.)

It appears then that an increase of the supply of foreign exchange in the home market, and an increase of the demand for foreign exchange in the market of the other country, are in some regards equivalents. Either may be the product of a like or common cause. In point of fact also, both are alike fundamentally in the further effects which they themselves produce or tend to produce upon the gold movements and discount rates. Thus an increase of the supply of sterling exchange in New York tends to drive down the rate for sterling toward the gold-import point and to produce a gold import into New York from

London, and an increase of the demand for New York exchange in London tends to drive up the rate for this exchange there toward the London gold-export point, and to produce a gold export from London to New York. And these two gold movements are, of course, the same.

In a similar manner a national debit always works out its effect upon the foreign exchanges in one of three ways:

(1) It may increase the demand for foreign exchange in the home market (without directly influencing the supply of or demand for bills in the market of the other country).
(2) Or it may increase the supply of bills in the market of the other country (without directly affecting the home market for foreign exchange).
(3) Or a national debit may act both to increase the demand for foreign exchange in the home market and to increase the supply of foreign exchange in the foreign market. (This is the converse of case 3 under national credits.)

In sum: *If a national credit directly affects the home market for foreign exchange in any way, it serves always as a source of supply of exchange, and its existence tends to lower exchange rates and works in the direction of occasioning gold inflow. If a national debit directly affects the home market for foreign exchange in any way, it serves always as a source of exchange demand, and its existence, therefore, tends to raise exchange rates and works in the direction of producing a gold outflow.*

When we explain that an operation of commerce between two cities may be so settled that in one of the two there will be no effect produced upon exchange supply and demand, we must be careful to state only that there will be no "direct" effect. This implies, of course, that there

may be an indirect effect on the exchanges in the city where there is no direct effect. If New York exports goods to Paris and if settlement is accomplished by New York's drawing exchange on Paris, it is true that while this operation works no direct effect upon the Parisian foreign exchange market, it does tend to produce an indirect effect in that market, especially upon the Parisian rates of exchange on New York. For the New York operation takes part in producing a general exchange situation which, through *arbitrage* tends to react upon the exchange market of Paris itself. That is to say, in the interest of accuracy we must restrict certain preceding assertions to the "direct" effects of the given commercial operation upon the given exchange market.

Returning now to the table giving the classification of sources of exchange supply and demand, we find the first source listed is "commerce in merchandise." This has reference to the commerce in merchandise of any given country. The second column of the table indicates that the country's *exports* of goods create a supply of drafts in its own exchange market. This is true, provided the export is settled for in any way that has a direct effect upon the home market for exchange. If settled in some other way, this same export will, acting as the other country's import, create a demand for exchange in that other country. Such a demand for exchange is what is indicated in the third column of the table by the item "drafts needed to pay for imports of merchandise." Similarly the given country's *imports* either directly affect its own exchange market and produce a demand for bills, or they act as the exports of the other country and produce a supply of exchange in it, serving as its national credit.

Special features of the securities traffic.—The *initial* effect of an export of securities is precisely the same as that of an export of merchandise, namely, to produce a

national credit. But most bonds and stocks that attain the dignity of international purchase and sale, pay interest and dividends. Thus while the sale of our securities abroad creates a national credit in the first instance, the interest charges due the foreign holder produce a stream of lesser national debits. Supposing these national credits and debits to be settled for by sales or purchases of exchange in our own market, as is the dominant practice in fact, instead of by the buying and selling of exchange abroad, the sale of a security to a foreigner produces a *supply* of exchange, while the necessity of paying him interest produces thereafter an intermittent and in general regularly recurring lesser *demand* for exchange. The repurchase, or the discharge of foreign-held securities at maturity, occasions of course a large single item of demand for exchange, but has the further effect of terminating the intermittent demand for bills to pay interest charges.

§ **153. The several spreads in the group of rates on a given country.**—As we pursue the theory of exchange rates from this point forward we run into matter of increasing technicality and difficulty. It will not be the attempt of this book to carry investigation or analysis to the farthermost regions which the purely scientific spirit might seek to explore. And what remains to be stated will have to be laid down, at least in places, in a manner somewhat arbitrary and without a full showing of reasons.

The following are actual quotations for bankers' drawings on an ordinary day some time before the abnormalities of the war injected themselves into the exchanges.

Sterling	
Cables	4.8765
Demand	4.8715
Sixty Days	4.83
Ninety Days	4.8160

The group of rates in one given country (*e.g.* the United States) on some other given country (*e.g.* England) rise and fall together in a general way—acting to a degree like a constellation—but the gaps or spacings between the members of the group are not in truth unchangeable. It is our next problem to make a summary of the causes or influences which govern these spacings or "spreads."

There are three primary or true spreads existing between the rates given in the last preceding table. These are (1) the spread between the cable and the sight rate, (2) that between the sixty-days' rate and the sight rate, and (3) that between the ninety-days' rate and the sight rate. All other spaces or gaps such as that between the ninety-days' and the cable rates, or between the ninety and the sixty-days' rates, are what we may call secondary or false spreads. To explain this discrimination, certain factors govern more or less rigidly the relative positions of the rates in any one national group, such as the sterling group. Now, taking the process of rate-making as it actually goes on in the real market, these factors govern or determine only those spreads which we have just designated as primary or true. It is true the fixing of these spreads determines the configuration of the whole group. The point is that the group configuration is determined by the fixation of these particular spreads and no others, and that the other gaps or false spreads become what they are secondarily and merely in consequence of this fixation.

Every primary spread is one between the *sight rate* on the one hand and some other rate on the other hand. Each of the other rates of a group is tied directly (whether in a loose or tight relation) to the sight rate, and there are no other ties. The bids and offers of other rates are computed from the sight rate as a basis, but the sight rate itself is not computed from any other rate but is determined independently in the market by the conditions of

supply and demand. As will be shown later, a supply of or demand for telegraphic transfers or long exchange converts sooner or later in regular course into a supply of or demand for sight exchange, and thus the sight rate becomes what might be called the *focal* rate of exchange as well as the common basis of reference for the other rates.

The notion that the telegraphic transfer rate is in some sense the fundamental or pure rate of exchange has a certain plausibility. Without attempting to analyze this notion exactly, we perceive that it carries the suggestion that other rates of exchange, including the sight rate, hang or depend from the telegraphic transfer rate, each being lower by an amount governed by discount or interest. Taking actual determinations or adjustments of rates as they take place in the real market, this suggestion is incorrect and will always remain incorrect. Sight bills are never discounted in any real sense. They are not in fact bought and sold under a quoted discount rate and never will be. Again, the rates for long bills are not computed from the telegraphic transfer rate and it seems safe to say they never will be.[5] The truth of the matter is the long rates are (times of financial turmoil apart) rather precisely determined in reference to the sight rate, while the cable rate is to one side being related more loosely to the sight rate, and being related to the others only through the sight rate. The claim of the sight rate to be basic in the group is further substantiated by the fact that it is the only rate in which both gold-export and gold-import points can be located. There can be a gold-import point in the rate for telegraphic transfers, but there can be no gold-export point in it. Telegraphic transfers on London cannot be sold in New York to-day against a gold export

[5] Except possibly in an undiscriminating manner in cases where, owing to a short distance between the two countries concerned, the sight and telegraphic transfer rate are nearly the same.

of to-day,[6] and it is not the cable rate of to-day, but the sight rate which determines the feasibility of the shipment. Thus when we say that the exchange rate is usually confined between the gold points, it is the sight rate of which we speak.

§ **154. The spreads for the long rates.**—On earlier pages we have considered the methods of computing the buying rates for long bills and have also discussed the factors governing investment in these instruments. It remains to bring these matters together and summarize them. The spread between the sight and a given long sterling rate depends upon the contemporary discount rate as major factor and upon stamp tax, commission, and profit, as minor factors. In an ordinary case perhaps 9/10 of the spread will be due to discount. The question arises, which discount rate is it that governs, that in the drawing city (*e.g.* New York) or that in the domicile city (*e.g.* London). The answer may be formulated in the following rule. *When the discount rate in the domicile city is the lower of the two, it alone governs that part of the spread due to discount. When the discount rate in the drawing city is the lower, it may affect, though it will not fully govern the spread.* Stating this in a slightly different form, the spread can never be greater than the figure proportionate to the discount rate in the domicile city but it may be less than this when the discount rate in the drawing city is lower, though it will not become much less.

Continuing with illustrations drawn from the New York market for sterling exchange, if the London money rate (applicable to the type of long sterling in question) is 3% and the New York rate is higher, the London rate will govern exclusively, whether the New York rate is 4, 5,

[6] The case of gold export with an interest-free advance on the other side is an exception to this statement.

or 6%, and it makes positively no difference which of these is the New York rate. When the rate for sight sterling is 4.85 and the London discount rate for a certain class of merchants' ninety days' bills is 3%, the buying rate for these bills would be 4.8070 to yield the purchasing banker a profit of nearly ¼¢ per pound.[7] The full spread is then 4.30¢. Money rates in New York being higher than in London, the best use the banker can make of these bills is immediate discount on arrival in London. In this use they are worth 4.8070 per pound and would be worth no less whatever be the height to which New York money rates ascend. Nothing is changed so long as demand sterling can be sold at 4.85 and London will discount (for arrival) at 3%.

Let us suppose that the money rate in New York becomes the lower. To obtain a strong case suppose that no more than 2% can be had in our market for short-term employment of money in ways equally good with investment in sterling bills of the kind we are considering. Assume further that the London discount rate for these bills is now 4%. Under these conditions it is quite possible that the spread will no longer follow the London discount rate. On the other hand, however, it is very unlikely it will be governed rigidly by the New York money rate of 2%. To explain: if the spread continued to be proportionate to the London money rate, our bankers would be able to make about 4% by investing in long sterling, provided the rate for sight sterling should remain as high at the termination as at the beginning of the investment.[8] Therefore if the indications for the course of sight sterling seem favorable it is probable the banks will compete for these sterling bills. If they yield 4% while corresponding domestic investments give but 2%, bidding is likely to be

[7] Compare the computation on p. 266.

[8] Compare §§ 80 and 81.

sufficiently spirited to drive the rate for them up at least a little distance, and so decrease the spread. It is safe to say this rise will never go so far as to make the spread correspond to the 2% money rate of New York, and in fact it is improbable it will go more than a small proportion of this distance. The reason is the risk of exchange. Thus we say that when the money rate is lower in the drawing than in the domicile city, it affects but does not fully govern the spread.[9]

§ **155. The telegraphic transfer spread.**—The rate for telegraphic transfers moves at a variable distance *above* the sight rate owing to the fact that the order by wire results in an earlier payment of funds abroad than does the demand draft. The cost of the telegram does not enter into the cable rate proper. Thus the cable spread is a phenomenon of discount or interest. It cannot, however, be explained in quite the same manner as the other spreads, though the latter are also based primarily upon discount, and it does not in practice follow the dictates of any one distinguishable money rate with anything like the fidelity with which the other spreads obey the money rates that control them.

Prior to the present war, the greatest and the smallest cable spreads in the rates for sterling recorded in New

[9] The rule formulated in this section was stated by the eminent Dutch economist, N. G. Pierson, in his "Principles of Economics" (translation), London, 1902, pp. 527–9 of vol. 1.

At times when the money rates are lower in the drawing city (*e.g.* New York) it is possible there will be few or no finance bills being offered, but long bills drawn by merchants on foreign bankers and merchants will continue to come forth in the usual volume. It is to be kept in mind that up to the time of the outbreak of the war, it was as a matter of fact a rare occasion for money rates to be lower in New York than in London, and thus as far as experience goes, the spreads for long sterling in New York have been governed by the London discount rate. For a time during the panic of 1907, it must be said, they seemed to be governed by nothing in particular.

York, at least within the last decade of the period, were experienced at the time of the panic of 1907 and in the weeks of financial stagnation immediately following. It is doubtful if we can tell from newspaper reports precisely what the extreme spread was on days of great fluctuations. Some reports quote only one sight rate and one cable rate for each day, but the better ones give the highest and lowest, or perhaps the opening and closing rates. Each of the monthly issues of the Bank and Quotation Supplement of the *Commercial and Financial Chronicle* (New York) has a table showing the high and low rates for the chief classes of sterling exchange for each business day of the preceding month. The following data are from the *Chronicle's* table for November, 1917:[10]

Nov. 7.	Sight, 4.86 –4.86¼.	Cables, 4.89¼–4.90.
Nov. 13.	Sight, 4.86¼–4.86½.	Cables, 4.90 –4.90¼.
Nov. 16.	Sight, 4.87¾–4.88.	Cables, 4.90¾–4.91½.

Examination of the reports of such papers as the *New York Times* or the *Wall Street Journal* shows they are likely to differ from the *Chronicle* and from each other with respect to the exact figures which have been quoted on a given day, especially if the market has been changeable. Taking, however, the figures copied above from the *Chronicle,* and assuming that the highest recorded cable rate was made at the same time of day as the highest sight rate, we discover the following spreads:

Nov. 7.	Sight, 4.86¼.	Cables, 4.90.	Spread .0375, or 3¼¢ per £
Nov. 13.	Sight, 4.86½.	Cables, 4.90¼.	Spread .0375, or 3¼¢ per £
Nov. 16.	Sight, 4.88.	Cables, 4.91½.	Spread .0350, or 3½¢ per £

The rates for November 16th are of interest as showing the highest price for cables reached during the period of the panic. The *Chronicle's* table for August, 1908, a

[10] Bank and Quotation Supplement, December, 1907, p. 22.

month in the ensuing period of stagnation, contains these quotations:

Aug. 17. Sight, 4.8650—4.8660, Cables, 4.8660—4.8665.

This shows a spread of .0005, but perhaps it was never actually below .0010, which is a figure found in a number of published reports for various days in this period.

From these data it would appear that the cable spread has within a period of ten months varied from 375 points to 10 points, or from 3¾¢ to 1/10 of 1¢ per pound. The greatest spread was 37½ times the smallest.

On August 1st, 1914, just after the outbreak of the great war, the rate in New York for sterling cables touched the astonishing figure of $7.00 per pound. Extensive transactions did not take place at this rate, but it is reported as one actually reached. For the same day, the *Commercial and Financial Chronicle* reports the sight rate as having been at $5.50 to $6.00 per pound. No doubt some sales actually took place at these figures. If so, there appears to have been a cable spread of from $1.00 to $1.50 per pound, the abnormality of which is easily appreciated by comparing it with an ordinary spread of about ½¢. On August 1st and for several days thereafter the exchange market, or exchange mechanism if one prefers, was really not functioning. Later it began to operate somewhat more smoothly, but it has not been running normally since, from that day to the present.[11] Since August, 1914 there have been no cable spreads as great as those of the autumn of 1907, though they have averaged greater than those of ordinary times, having been at or near 1¢ much of the time during the last three years. While it is not difficult to point out the circumstances which made possible the colossal spread of August 1st, 1914, it would be absurd to try to relate it to any existing discount or interest rate,

[11] The spring of 1919.

and we shall not attempt to bring it under any set rule or law. A spread of $1 above a sight rate of $6, would correspond to an interest rate of about 1,000% per annum, if sight bills were payable in London a week later than cables. In this condition mails were not in fact getting over.

Rates for call and short term money have undoubtedly much influence on cable spreads, but statistical studies, at least of extraordinary times, will show a very low degree of correlation between the two. On October 24th, 1907, the call loan rate reached 100% per annum in New York, while the cable spread of the day was about 145 points. On November 7, 1907, the cable spread appears to have climbed to 375 points, while call money was at the highest at 20% in New York and at 5% in London. Dear call money of course is associated in a general way with a great spread, but only in a general way. On August 17, 1908, when the spread was 10 points, the call rate was at 1% in New York and at ¾% in London.

If we attempt now to construct a theory of the cable spread, by which we mean nothing more or less than a general explanation of it, we find that the subject is best treated under three headings, namely: (1) the theoretical minimum (or lowest possible rational) spread, (2) the normal spread, and (3) the spread under the influence of necessitous buying.

(1) *The minimum spread.*—If we arbitrarily assume that sellers of cables have surplus funds both at home and in the foreign balance and are willing to sell this form of exchange so cheap that they merely make no losses from the operation, and that there are no buyers whose commitments abroad force them to procure cables, in other words, that all buyers could make demand drafts serve, we have the conditions under which the spread might fall to its very minimum. This minimum would be governed

by the foreign city's deposit allowance rate or rate of interest paid on bankers' balances.

Treating as usual of the New York market for sterling, let us assume the following:

Sight rate	4.85
London deposit allowance rate	1%
Mail time, New York to London	6 days

A banker buying a sterling cable instead of a demand draft would at the least make a gain (in sterling in London) of 6 days' interest at the deposit allowance rate. Taking 6 days as about 1/60 of a year, a pound remitted by cable would become £1 plus 1/60 of 1% of £1, by the day when a sight draft for £1 could arrive and produce merely £1. Thus £1 of cable transfer is as a purchase worth at a minimum 1/60 of 1% more than £1 of sight draft. 1/60 of 1% of 4.85 is .0008, and therefore when a sight draft can be bought for 4.85 a cable is as good a purchase at 4.8508, the spread being 8 points. The spread could hardly then fall below 8 points, for if it did cables would become better purchases than sight drafts even for those who had no special need for cables as such, and all the demand for sight sterling ought to shift entirely to cables. Hence the sight rate could not get closer in to the cable rate than 8 points.

On the other side the supply of cables would necessarily disappear if the spread should fall below 8 points, because the seller of this form of exchange would begin actually to lose money if he sold at a rate lower than within 8 points of the sight rate. This gives us a second sufficient reason why the spread could not fall below 8 points.

Since rates commonly move only in intervals of 5 points at a time, the theoretically indicated cable spread of 8 points would probably become 10 points, and with the

sight rate at 4.85 and the London deposit allowance rate at 1% the theoretical minimum cable rate would be 4.8510. These speculations do not appear altogether idle when we look at the cable spreads of August, 1908. During that entire month the Bank rate stood at 2½% in London and the deposit allowance rate, commonly paid, at 1%, and according to the *Commercial and Finincial Chronicle's* table [12] there was one day when the spread was 10 points (if it was not lower) and there were eight days when it was but 15 points. Throughout July of the same year, the deposit allowance rate was likewise at 1%, and there were four days when the spread was 10 points and four when it was 15.

(2) *The normal spread.*—An exchange bank may make it a regular department of its business to supply the market with cables, though only larger banks and exchange houses are likely to do this. The supply of cables is usually competitive, but it is to be supposed that sellers ordinarily should be able to secure from this line of business returns covering interest on any funds especially employed in it and also a remuneration for placing facilities at the disposal of others, substantially equal to the similar remunerations procurable under competition in other lines of foreign and domestic banking. The latter remuneration is likely to go by the name of "profits" and no objection to this use of words is raised here. In other words, selling cables must be expected usually to yield interest and profits as great as those obtainable in alternative lines of employment of money funds and banking-house facilities.

The seller of a cable who covers his sale with the purchase of another cable is of course not adding to the supply on the market, but is really acting as an intermediary for the convenience of some customer. Examination of

[12] Bank and Quotation Supplement for September, 1908, p. 22.

this operation will lead us to no conclusions regarding the cable spread, and so we set it aside. The bank which contributes to the original supply must ultimately cover its sales of cables by purchases of sight drafts (or their equivalent in discountable long bills). But if a given lot of sight drafts are to serve as cover for cables sold to-day they must have been bought and forwarded about six days ago (from New York). Any lot forwarded at a later time than this cannot be in London to-day.

If then a New York bank sells £10,000 of cables to-day it should charge the operation with the cost of £10,000 of sight drafts bought six days ago. Dollars were expended six days ago and a return of the fund in dollars is received to-day from the sale of the cables. The return must exceed the outlay if it is to afford interest and profit. In the present connection we shall count "profit" as containing everything in the way of gain above the interest, so that profit contains a contribution to the overhead costs of banking. The operation is chargeable with six days interest at the rate which can be had by some alternative employment of the bank's funds, substantially equivalent in point of security and liquidness. Unless it yields this it is not worth undertaking,[13] and only when it yields something in excess of this can it be said to afford a profit. Perhaps the nearest alternative employment of funds is in call loans on good collateral.

Suppose then first that the call loan rate is 4%, or more fully, that this rate has averaged 4% during the last six days, and suppose further that £10,000 of demand drafts were bought six days ago at 4.85, costing thus $48,500. Suppose also that a profit of 15 points is required. The

[13] Except on the theory that while it does not pay all its own costs it may be justified as attracting other business to the bank, which is self-remunerative. This appears a questionable justification.

£10,000 of cables ought then to sell at a rate determined as follows:

Sight rate of 6 days ago	4.85
Outlay	$48,500.00
1/60th of 1 year's interest on this at 4%	32.33
No-profit selling price	$48,532.33
No-profit rate	4.8532
Profit required (15 points)	.0015
Required selling rate	4.8547
Nearest standard rate above	4.8550
Theoretical normal spread (call money at 4%).	50 points

This spread is one between the cable rate of a given day and the sight rate 6 days earlier. But the cable spread as ordinarily understood is the gap between the cable and sight rates of the same day or moment. Assuming that the sight rate moves far enough during the six days, the preservation of a natural spread between the cable and *past* sight rate will mean the establishment of an unnatural one between it and the *contemporary* sight rate. Thus if the sight rate were 4.85 six days ago and 4.86 to-day, and if the cable rate of to-day were 50 points above the past sight rate, it would be 50 points below the present sight rate, which would indeed be absurd. If, on the other hand, cables were raised to 50 points above the present sight rate, they would be 150 points above the past one. As a point of fact, the cable rate is related primarily to the contemporary rather than the week-old sight rate, and only a slight study of market reports will be required to show this. What happens in practice would seem to be that the spread which, as a matter of cost accounting in the individual instance, should be added to the past sight rate, is added to the contemporary sight rate instead. The adoption of this policy means a loss to sellers

of cables on days when the sight rate is lower than a week earlier and a counterbalancing gain on days when it is higher. It allows the seller the required interest and profits *on the average* or in the long run, and has the great advantage of making the relation between contemporary cable and sight rates more stable. A regular and continuing business in cables could hardly be conducted on any other plan, for buyers of this form of exchange would avoid it to the utmost if the rate for it were to have too capricious a relation with the contemporary demand rate.

The foregoing seems as satisfactory a theory of the normal cable spread as can be constructed. It makes this spread depend chiefly upon the rate for call or very short-term money in the place where the cables are sold. But only a very rough correlation between the two will be found in fact. The correlation might be greater if the call rate were itself a stabler quantum. It must be kept in mind that a call rate of 3% is twice as high as one of 1½%, and the call rate may at times be doubled or cut in half in the course of an hour. The economic theorist who maintains that cost of production sets the normal value of freely producible goods does not mean to assert that the market value will always in fact rest at normal value. The claims of the theoretical norm here advanced must be put even more modestly than the claims of the normal value of goods. The more stable the sight exchange rate and the call money rate and the less necessitous the demand for cables, the more nearly we should expect the actual cable spread to conform to the normal indicated.

(3) We have attempted to describe the factors which set the very minimum cable spread and also what we have assumed the right to call the normal spread. It remains to discuss the maximum. Concerning this it seems impossible to advance any very definite theory. Naturally maximum spreads will be experienced under the pressure

of necessitous buying. Even under ordinary conditions it is probable most buyers of cables must procure them, because of having allowed the time to run by when they could discharge their foreign commitments by means of drafts forwarded by mail. Nevertheless the cable spread ordinarily represents or corresponds to a moderate rate of interest. The very fact that experienced mercantile, brokerage, and banking houses will under usual conditions permit themselves to get into a position where they must find cables, shows that they feel safe in counting upon reasonable rates. But the present question is, what factor or factors will set the upper limit to the cable spread in case some unusual financial condition precipitates an extraordinary and helpless demand for them. It would seem that there is nothing more to be said than that as the spread increases, or the cable rate climbs upward from the sight rate, the less necessitous elements in the demand will fall away and certain extraordinary supplies will be brought forth. Some of the intending buyers may be able to arrange by wire for a postponement of their foreign commitments, or may be able to effect a foreign loan by wire to take care of them. Some sellers may begin to offer cables at the expense of overdraft in their accounts in London. Some may make arrangements by wire for extraordinary credits against which to make sales. Very likely a considerable fresh supply will come from the arbitragers. But the question remains, between the necessitous demand and the forced supplies what maximum rate can come forth? The general principle may be laid down that the ascent of the spread will be stopped at the point where the increasing offers of cables become equal to the declining bids, or where the increasing amount seeking sale becomes equal to the declining amount sought by buyers. But this principle, that of the "equalization of supply and demand" can be of very little utility to the

dealer who desires to estimate the actual figure to which cables will in some instance probably ascend, though it has a place in the theoretical explanation of the phenomenon. To tell one that when a weight is suspended by a coil spring the spring will be extended until its upward pull becomes equal to the downward "pull of gravity" on the weight (unless the spring breaks meanwhile), will not of itself enable him to prophesy as to the actual length to be attained by the spring. That is, this mere principle of the equalization of stresses *without concrete data* yield no concrete results, and a similar observation holds of the principle of the "equalization of supply and demand."

§ 156. **Arbitrage and the interrelation of rates.**—We turn now from the interrelation of rates within a single national group, such as the group of sterling rates in New York, to the interrelations among rates in or on different countries, as determined by arbitrage in exchange.

Consider first the relations between mutual or reciprocal telegraphic transfer rates, or a pair of rates such as the rate in Paris on London and the rate in London on Paris, or again the rate in New York on London and the rate in London on New York. It being assumed that the essential conditions precedent, namely uninterrupted communication, legal freedom of dealing and continuous and active markets, are realized, the effect of arbitrage is to force the pair of mutual rates to a position of *parity*. This is any position at which the two express or record the same value-ratio between the two national currencies. Thus if according to New York's rate for cables on London, pounds are to dollars as 4.8620 to 1, the London rate for cables on New York will be in a position of parity when it records this identical ratio. English quotations on New York are now being published by the *Economist* (of London) in the form of the number of dollars of exchange procurable for one pound. Thus to be at a parity with

our rate, their rate must be identical with ours, even with respect to the exact figures which express it, and must in the case in hand be 4.8620. But London quotations on New York have also been put in the form of the number of pence payable for one dollar of exchange, as for example say 49½. The position of parity for a rate quoted in this manner would be 49.362 or close to 49⅜.

If the rates deviate from parity, even to a very slight extent, two-point arbitrage springs into action and forces them to parity or to a negligible distance from parity.[14] It should be understood there are an indefinite number of positions of parity. The following extraordinary pairs are all at perfect parity, in the sense of the term as used in connection with arbitrage.

New York on London		London on New York
4.60	.....	52.174 d.
1.50	.....	160. d.
7.00	.....	34.286 d.
45.20	.....	5.309 d.
4.8665	....mint par....	49.317 d.

The first four rates in New York on London are so far away from the mint par that they look, as one might say, unnatural. Nevertheless the rates of $4.60 and $7.00 were actually reached during the great war. In ordinary times the pair of rates will be confined between the gold-points, but it is not in the least arbitrage that acts so to restrict them, but the shipment of gold. Arbitrage as an economic force is satisfied, so to say, whenever the rates reach a position of parity, whatever be the tilt of the pair.

It is only the cable rates that arbitrage tends to bring to an absolute parity. London's sight rate on New York will be lower (in the sense of cheaper) than London's cable rate on New York. New York's sight rate on Lon-

[14] This operation is explained in § 97.

don will be lower than its cable rate on London. A moment's reflection, or work with a pencil, will make it clear that if the mutual cable rates are at a parity the mutual sight rates cannot be.

Next to be considered is the wider problem of the interrelation of rates, or their interrelations in three or more countries. By reason of arbitrage again, the rates in all countries are bound together in a certain curious manner, with the result that in some respects their movements are constrained or conditioned while in other respects left free. These wider effects do not flow from the two-point but from the three-point and more complex forms of arbitrage. It must be said however, that two-point and three-point arbitrage, carried out wherever the movements of rates present opportunities, are together competent to produce all the effects on the world's rate-structure that it lies in arbitrage to produce. If four-point or more complex operations were unknown or impossible, arbitrage would be lacking nothing as an economic force.

Let us now take the case of three cities each of which is assumed to deal in telegraphic transfers on the other two. London, Paris and New York will serve, though we know London's market in exchange on the other two capitals is not as active as their markets for sterling. Three national currencies are involved in the problem. There are likewise three value-ratios between currencies and three only. These ratios are those

(1) between francs and pounds
(2) between dollars and pounds
(3) between dollars and francs

Two-point arbitrage is sufficient to make each pair of mutual rates agree as to the value-ratio to which they pertain. If the London cable rate on New York makes £1 =

$4.86, to be at parity the New York cable rate would have to make the ratio just the same. Also the mutual telegraphic transfer rates between London and Paris would have to agree on some figure, let us say £1 = 25.20 francs. With these two ratios determined there is only one position left for the ratio between New York and Paris, namely $1 = 5.185 + francs. For if £1 = $4.86 and £1 = 25.20 francs, $4.86 ought to equal 25.20 francs, which would mean that $1 would equal 5.185 + francs. *But so far as mere two-point arbitrage goes,* the New York and Paris mutual rates might agree on a ratio of $1 = 4 francs or any other ratio. When it is said that $1 "ought to" equal 5 francs, the meaning is that if the other two ratios maintain themselves as given, buying and selling of exchange would *force* the New York and Paris mutual cable rates to the ratio of $1 = 5.185 francs. It is not, however, two-point but only three-point arbitrage that is capable of forcing this result. Why it should necessarily act in this manner should be clear in view of the explanations that have already been offered in Chapter XIV and especially in § 99. In the problem of three currencies any two of the value-ratios imply the third, just as the first two given above, namely,

£1 = $4.86
and £1 = 25.20 francs
imply £1 = 5.185 francs

Now whenever the third ratio is, as actually recorded in the exchanges, the one required by the other two, we may speak of it as being *consonant* with them. When this position is attained, any two value-ratios may be taken first and the remaining one, as third, will be *consonant* with them, so that all three are consonant. There are an indefinite number of positions of consonance. For example the following is one:

£1 = 50 francs
£1 = 2 dollars
$1 = 25 francs

The fact that these ratios are very much further away from the mint pars than any known to actual experience even in the great war, does not mean that they are not perfectly consonant. Once established, there would be nothing in *arbitrage* to change them. The influence which would prevent their establishment is not arbitrage.

To summarize: it appears that in any three countries, having active exchange dealings with one another, arbitrage tends ever to produce a certain condition of equilibrium among rates. Complete parity is producible only among the rates for telegraphic transfers.

I. The condition of perfect equilibrium among cable rates in the triangle of the three countries, A, B, and C, involves

1. the parity of each mutual pair of rates,
2. the parity of either rate between any two of the countries, as A and B, with the opposite pair consisting of (1) either rate between C and A, coupled with (2) either rate between C and B,[15] and finally as a consequence,
3. the perfect consonance of the three exchange-ratios between the three currencies.

[15] For example, the N. Y. rate on London will be at a parity with the following four pairs:

(1) N. Y. on Paris—Paris on London,
(2) N. Y. on Paris—London on Paris,
(3) Paris on N. Y.—Paris on London,
(4) Paris on N. Y.—London on Paris.

Taking number (3) from among these at random: if Paris on N. Y. is at 5.17½ francs per dollar, and Paris on London is at 25.10 francs per pound, the N. Y. rate on London is at parity if it stands at 4.85024 + (nearest standard quotation, 4.8500). If this rate

II. There are an indefinite number of positions of perfect equilibrium or perfect consonance of value ratios.[16]

III. Except for cases of complete or partial failure of arbitrage by reason of inactivity of markets for certain classes of exchange and inadequacy of communications, triangles of countries such as the one just considered would form themselves to connect each single country in the world with every other possible pair of countries. An approximation to this result is obtained in actuality.

If we suppose there are four countries in a system, namely A, B, C, and D, and suppose that after the rate structure of A, B, and C has reached the position of consonance of value-ratios, D is added, and its rates with B and C form another perfect triangle, then the rates of the whole four as a system will have reached the position of consonance, without further adjustments, and the rates for any three out of the four will be in the position of consonance. By successive additions in this manner of one country after another we can in imagination build up the rate structure for the principal commercial countries of the world.

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goes appreciably above or below this parity an arbitrage operation becomes possible. For one example, suppose it goes to 4.8525, the operation will be to sell sterling in N. Y. This requires us to produce a fund, or create a credit, in London by way of Paris. This can be done under the "opposite pairs" of rates given in this problem, by selling a cable on N. Y. in Paris and buying a telegraphic transfer on London in Paris. This will produce £1 in London at the cost of $4.85024 + (excluding incidentals) and will yield a gross profit of 2⁷⁄₁₀₀th of 1c. per pound.

[16] The sum of the angles of a triangle equals two right-angles (except in non-Euclidean geometry) but there are an infinite number of shapes of triangles. Arbitrage imposes certain restrictions upon the configuration of the rate structure of three countries, but there are theoretically an infinite number, and practically an indefinite number of positions still open to this structure even under these restrictions.

If, in conclusion, we examine the significance which the interrelation of rates due to arbitrage has for the foreign exchange market in some one country, we find that the value of the currency unit of that country in terms of the moneys of other countries is free to rise or fall to any extent whatsoever. That is, arbitrage will not set any limits on the duration or extent of such a movement as a whole. It will merely impose one condition upon its manifestation in the market for foreign exchange. As the value of the local money (in terms of other moneys) rises, the local rates for exchange on other countries fall, and *vice versa*. The effect of arbitrage is merely to make it necessary that the separate rates on all the other different countries should fall or rise in just the same proportion, *unless their relative values change meanwhile*. Thus suppose our dollar appreciates in terms of sterling, insomuch as the rate for sterling in New York falls 5%.[17] Arbitrage will necessitate that the rate on Paris should also fall[18] just 5%, unless the rates of exchange between England and France make a shift meanwhile. If *in the interim* sterling falls perhaps 2%, in Paris, then arbitrage will determine just how far francs must fall in New York[19] to keep a position of parity with sterling if the latter falls 5%. Except, then, as the rates of exchange between foreign countries, or the relative value of the currencies of these countries, change *inter se*, the rates of exchange in our country must ascend or decline together. Often of course the relations among foreign currencies change quite as much, as do their relations with our currency, and it is

[17] This is a greater movement than can take place when England maintains the gold standard with the gold contents of the pound unchanged.

[18] Fall, in the sense of making francs cheaper. As the rate is quoted, the actual figures—francs obtainable per dollar—would rise.

[19] Virtually but not precisely 3%.

therefore nothing in the least unusual for some of our exchange rates to rise while others at the same time are falling. When several countries maintain the gold standard, in external as well as internal relations, and keep the weight of their gold money-units unchanged, the fluctuation of rates among these countries will be quite closely confined, not in the least through the influence of arbitrage but through that of gold shipments. The fluctuations of the value of an inconvertible paper currency against the background of the other moneys of the world generally, will depend in part on the course of the values of these other moneys in terms of commodities and in part on the variations of the value of the inconvertible paper measured in the same manner. The fate of the money at home depends of course on the policy pursued by the government issuing it. The one great and significant principle is that the greater the quantity of it kept in circulation, the less its purchasing power over goods *tends* to be. Increase its quantity *enough* and its purchasing power fades towards the vanishing point. Arbitrage is, of course, possible in a country with inconvertible paper money.

§ **157. The international distribution of gold.**—A century ago the economist Ricardo laid down the doctrine that gold money tends to distribute itself among the different countries of the world in such proportions as to attain everywhere an equality of value-in-exchange or purchasing power over commodities. Silver money, in those days a standard money in many parts of the world, was, of course, conceived to come under the same rule. Each country was thought of as having a natural share of the world's specie, a sort of *national quota,* to which its actual stock ever tended to conform. If the latter should, through excessive imports of goods and exports of specie in payment therefor, be brought below the national quota, specie would (owing to its very scarcity in the country) ascend in value

or gain in purchasing power over goods, or, what is the same thing, prices of goods or their values in terms of specie would fall. This fall of prices, making the country a good market in which to buy, would operate to increase its exports of goods, and, making it a poor place to sell, would tend to decrease its imports, until the change in the relation of these two, constituting a reversal in the balance of trade, would restore the national stock of money by causing specie to flow back again. Excessive imports of specie (*i.e.*, those making the actual stock rise above the natural share) would correct themselves by producing just the opposite effects on the balance of trade.

Since Ricardo's day the world has given much thought to the methods of measuring the general purchasing power of money over goods, that is, to the problems of index numbers, and has come to regard the subject as not without its difficulties. Since Ricardo's day the banking and credit systems of the nations have grown enormously in size and complexity, the machinery for international short-term borrowing and lending has been much developed, and discount rates and prices of gold have come to be manipulated with a view to the regulation of the gold movement. Thus under modern conditions the fundamental forces affirmed in Ricardo's theory are covered over and obscured by such a number of proximate causes affecting the flow of gold that the truth of the theory is not always clearly perceived.

The conception is that the geographical distribution of gold money reaches a condition of equilibrium when this money has attained equal commodity values in the different parts or countries of the world. Until we can agree upon some method of measurement whereby we shall be able to determine in fact whether or not gold has precisely the same general purchasing power in one country as in another, we had better restrict our claim to the proposition

that gold seeks to distribute itself in such proportions as to arrive at a *rough equality of general purchasing power* in different countries.[20] It is believed then that any gross inequality in value as thus defined, any inequality so great as to be indisputable despite the problem of the measurement of fine differences, will tend to correct itself, it being assumed of course that governments permit the free movement of the metal (an assumption which did not hold during the period of the great war).[21]

It is safe to assert that Ricardo's theory—as a theory of the fundamental or underlying factors governing gold movements—is acceptable to the great majority of political economists to-day. It has been attacked by some who disbelieve in the so-called "quantity theory" of the value of money, even in the mild form in which this doctrine is implied in Ricardo's theory. It will not be the attempt here to argue the case exhaustively, as this would involve a very lengthy discussion and force this book beyond the confines expediency has set upon it. But let us give the matter a little more consideration.

Suppose, owing to technical business developments England begins to sell us so much merchandise and we come to sell England so little, that (whatever be the national credits and debits arising from interest, insurance, and shipping charges and the like) a chronic condition of great demand and slight supply of sterling exchange arises in our market. The exchange rate on England stays persistently at the gold-export point. Steadily and in large volume the metal flows from us to England. The first effects will probably be rising money rates here and a

[20] As a matter of theory it would seem that it seeks to equalize its general purchasing power, not over all commodities in the several countries, but only over those as a group, that are capable of export and import between countries.

[21] The effects of foreign trade tariffs are not taken into account in this brief statement.

falling away of them in England. This will tend to remedy the difficulty. It will probably lead to our drawing finance bills which will immediately add to the supply of demand sterling exchange in our market in the manner already explained in Chapter XII. English banking houses will be inclined to place short-term loans with us, in order to gain the higher interest procurable here. This will also mean a supply of demand sterling at the time of the making of the loans. Our stiff money rates will tend to lower the prices of interest-bearing securities in our market, while the reverse conditions will tend to raise them in England, so that in consequence we may sell quantities of them to England, and against all such sales sterling exchange will be drawn and sold in this country.

Perhaps all this will break the exchange market and pull the sterling rate away from the gold-export point. Perhaps the rate will be driven even to the import point so that we shall begin to recover specie. But suppose—merely suppose—the perverse tendencies in our merchandise commerce remain unabated. If we keep on buying foreign goods in sufficient excess, the system of holding our gold by borrowing abroad and selling bonds and stocks will in time reach the point of exhaustion. What then? Is there some fundamental remedy which will go to the seat of the trouble? Assuredly. As the quantity of money and credit in the country undergoes further and further contraction, the prices of goods must begin to drop, if not absolutely, at least relatively to prices in England. The plethora of money and credit in England will tend to raise prices there. The consequence will be that many things formerly importable from England will cease to be importable, by reason of increased dearness there and increased cheapness here, and many things not exported by us before will become exportable for precisely the same reason. Thus if the preliminary remedies fail, the later

and more fundamental one is bound to be generated. Let exports of specie be supposed to go far enough, and no fair-minded and informed thinker can deny the inevitableness of the events that have been pictured. The fundamental natural remedy is, or at least may become, pretty drastic.[22] As stated on an earlier page, its existence is no reason for failing to employ consciously and under central banking management, the less severe "artificial" remedies.[23] If we admit the existence of this fundamental "natural" remedy, we admit the essential point in the Ricardian theory of the international distribution of specie.

We speak of "excessive" exports or imports of gold, meaning, of course, such movements as will make a country's stock of the metal either excessively small or excessively great. The "natural" share of gold belonging to the country, as conceived by Ricardo, is the amount which is neither too great nor too small in comparison with the amounts held by the rest of the world. This, the *national quota,* is the quantity which will make the general price level of the group of internationally movable commodities the same here as abroad. Each gold standard country will have its quota when the general price level of this group of commodities is equalized in all the countries.[24] Making a summary statement without proofs, it may be said a given country's quota or share of specie is a greater one, the greater its volume of trade, and a lesser one the

[22] By reason of leading to a slowing down of industry and inducing "hard times."

[23] Compare §§ 143–147.

[24] The function of commerce is constantly to move goods from where they are most readily produced and cheap to the places where they are dear. If commerce performed this function with perfect continuity and smoothness the various national stocks of money might maintain themselves in a continuous state of equilibrium. But there is too much that is new arising in commerce all the time for this condition to be realized.

greater the extent to which it uses substitutes for gold as a means of payment such as other forms of money—government and bank notes—and checks on deposits with banks. The greater the rapidity of circulation of gold money, other forms of money, and bank deposit "currency," the less the national quota.[25]

In view of the gigantic superstructure of credit reared in more modern times upon the foundation of gold—which has so often been likened to an inverted pyramid—we should in conclusion state quite explicitly the reservations that ought to be made as to the adequacy of the so-called "natural" remedy for gold drains. The operation of this remedy is always dependent upon the maintenance of the gold standard. It is this which will necessitate a contraction of credit as gold drains take place, and thus bring into operation the corrective of falling (or relatively falling) prices of goods and commodities. For any untoward development of commerce, leading to a chronic excess of imports, a development which by reason of its very nature would have to come somewhat gradually, the "natural" remedy is not only adequate but is the only real cure. This, however, does not signify that it is all-sufficient, and that the practices of European central banks in supplementing, or better, in anticipating it are works of supererogation. Measures must be taken to meet gold drains, which under the somewhat hectic conditions of modern credit may inflict themselves on a country as a "run" inflicts itself on a bank. In fact, the tendency of the times is to concentrate a country's gold in its central bank, and a foreign drain of sufficient proportions (like that of 1907 from England) is virtually nothing but a great run on this central bank.

[25] Further explanations would lead into the theory of the purchasing power of money. The best work on this subject is Irving Fisher's "Purchasing Power of Money," Macmillan & Company, New York.

ADDENDUM

THE QUESTION OF DOLLAR EXCHANGE

In recent times attention has been attracted to the *question of dollar exchange,* or the question as to the future of the draft drawn payable in dollars, as an instrument of international trade. Bills of exchange employed in internal trade, being always of course drawn in dollars, might be included under "dollar exchange" in a broad sense, but the question being mooted to-day does not concern domestic paper. However, both bills drawn for the acceptance of bankers' and merchants' bills on merchants are coming into greater use in the home trade, and this tends to further a like development in our foreign commerce by making for an acquaintanceship with acceptances and by aiding in the building up of a broad and active discount market for such instruments.

The importance of dollar exchange in foreign trade has indeed grown considerably during the latter years of the war, but what many hope for is that it may come to hold something of the position that sterling exchange has had. Whether or not we care to make predictions in this field, we can set forth what the realization of this expectation would signify. In the first place, dollar exchange might come to fulfill the same functions in our own foreign commerce that sterling exchange has fulfilled in the foreign commerce of the United Kingdom. But in the second place, and beyond this, it might come to function in commerce which does not touch our shores but which goes direct between two foreign countries, in the way sterling exchange

has for years functioned for commerce not entering the United Kingdom.[1]

If dollar exchange comes to occupy the field in connection with *our own* foreign commerce it would mean that some of the exporters who ship to the United States would draw long bills on our importers, payable here and in dollars. For these "trade" bills there would have to be a market in the exporters' countries. In this country they would be discountable after acceptance, except possibly documentary payment bills. Documentary instructions would sometimes run "documents for acceptance," sometimes "documents for payment." We should have an open or public "retirement rate of discount."[2] Our banks might or might not develop a custom of discounting documentary payment bills. If an exporter to this country demanded a bank credit, he would, under the conditions we are discussing, be willing to take a credit established by our importer with an American bank, instead of as formerly one with a London bank, established through the intermediation of an American bank.[3] His dollar draft on our bank would have to be readily salable in the country of export, and would be discountable here as a banker's acceptance.

Coming to the draft of our exporter on his foreign buyer, unless he drew in a sum of the money of the foreign country itself (which would be uncommon), he would draw for a return draft on New York in dollars. With the system fully developed this might be one at 60 or 90 days' sight as well as one payable on demand.[4] And if our exporter demanded a bank credit what he would be offered

[1] Compare § 39 for an illustration.

[2] Compare § 35.

[3] Compare §§ 37, 38, and 39.

[4] On certain countries we have been drawing for return *demand* drafts on New York for some time back.

and would take would be one with an American bank, authorizing him to draw upon it a bill (usually a term bill) in dollars. This credit would be established by the foreign importer through the intermediation of some bank in his country, possibly an American branch, or a bank managed by American capital.

If these conditions are realized dollar exchange replaces sterling in the field of *our own* foreign commerce. But going further, if it is to play the rôle in the world at large which has fallen usually to sterling, it will come to pass that the importer in some foreign country A will provide the exporter in some other foreign country B with a dollar credit at a New York bank, and settlement will proceed on exactly the same lines as those described in Chapter VII of this book, New York being substituted for London and dollars for pounds.

Now, as for predictions, New York will probably not *displace* London for years and years to come. Our resources, actual and potential, are greater than those of the United Kingdom, our foreign trade will probably grow to huge proportions, but New York will not soon *displace* London. The British have a tremendous going concern in this business of banking for foreign trade. New York may come to *share* the business with London, taking a place similar to London's with respect to some foreign countries, perhaps in Latin America and the near Orient. *But the one great factor upon which the development of New York as a foreign trade financing center depends is the maintenance there of a discount market capable of absorbing (that is, buying) the great volume of bills implied in this development, AT DISCOUNT RATES WHICH WILL AVERAGE AS LOW AS THOSE OF THE OTHER CENTER PREPARED TO OFFER SUCH A SERVICE, NAMELY, LONDON.* Otherwise the advantage will remain with the sterling long bill, because

exporters will get more out of these bills for their shipments in the long run. The quotation beneath, from the *Federal Reserve Bulletin* for January, 1918, pages 21 and 22, offered by way of conclusion, speaks for itself.

BANKERS' ACCEPTANCES IN LONDON AND NEW YORK

The following computation prepared by Mr. Leopold Fredrick, of the American Smelting & Refining Co., furnishes data concerning the estimated amount of acceptances outstanding in London and New York at a date approximate the end of November:

LONDON	
Acceptances of all London clearing-house banks, colonial banks, foreign agencies, and private bankers outstanding in the neighborhood of	$500,000,000
NEW YORK	
Acceptances of New York national and State banks and trust companies	270,000,000
Acceptances of foreign trade corporations and foreign agencies established in New York	55,000,000
Acceptances of private bankers	40,000,000
Total	$365,000,000
Deduct acceptances issued for the purpose of financing domestic trade	155,000,000
Total of acceptances representing the financing of imports and exports through New York	$210,000,000

In commenting upon these figures Mr. Frederick says:

"The foregoing figures show that London is far ahead, and I believe that even with the much-needed improvement of the machinery for financing international trade London will still, for many years to come, outdistance New York.

We are lacking here the large number of merchants-bankers' old-established accepting houses with business ramifications all over the globe. We here will be satisfied if we can hold the Central and South American and Far Eastern business. Although dollar exchange has made great strides since the war, the New York discount market is still in its infancy. For the present there is little likelihood that we will get, except occasionally, the financing of the continental trade of Europe. It is hardly likely that, say, an Amsterdam merchant importing goods from France will seek accommodation in New York; he will go as heretofore to London. It may be possible, I think, that this handicap of location will be partly overcome in the future with the aeroplane development, which would narrow down the time consumed by the mail in transit."

THE END

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