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THE
A B C
OF
THE FOREIGN EXCHANGES
A PRACTICAL GUIDE

BY
GEORGE CLARE
AUTHOR OF "A MONEY MARKET PRIMER"

SIXTH EDITION

REVISED, WITH ADDITIONS, BY
NORMAN CRUMP

MACMILLAN AND CO., LIMITED
ST. MARTIN'S STREET, LONDON

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PREFACE TO THE REVISED EDITION

NOTWITHSTANDING the fact that thirty years and more have elapsed since this book first appeared, comparatively little change was found necessary in the original text. The addition of a few words here, the deletion or modification of a paragraph there, were sufficient to bridge the gap. That this was so seems to me a striking proof of how well the rules and theories evolved by the economists of the nineteenth century have stood the test of time and the disintegration caused by the war. During the last five years it has become fashionable to evolve new monetary theories. What, in my opinion, is more needed is a closer cleavage to the old, a policy of evolution rather than revolution.

It is on these lines that I have treated the history of the past ten years. My chief endeavour has been to show that, given the financial and economic conditions prevailing during and since the war, the exchange movements that have ensued confirm rather than confute the rules laid down in preceding years. To quote but one example, there is no fundamental distinction between the old belief that the rise and fall of exchange depended upon the balance of trade, and the post-war theory that

the exchanges are governed by commodity price movements. These two schools of thought can be reconciled, if it be granted that a nation, just as an individual, buys in the cheapest market.

If I might make one plea, it is that under present-day conditions it is not sufficient for the student of finance to be acquainted solely with the mechanism of exchange. A knowledge of bills, drafts, credits and other instruments is essential to those engaged in the banking or in kindred professions. But this is not enough. At the present time, public attention has been directed towards exchange movements, and the majority of people claim to have some superficial theoretical knowledge. For this, if for no other reason, the student should have some knowledge of the forces at work. Practical knowledge and experience are an absolute necessity, but an acquaintance with the theory of foreign exchanges must not be despised. That is the only way in which we can catch the layman in his heresies.

Here and there I have been forced to touch upon current politics, occasionally on controversial questions. In such cases I have endeavoured to preserve a strict impartiality, though it is possible that my own views have become apparent. Modern financial and political life have become inextricably interwoven, and I am doubtful if financial changes can be properly appreciated by those who pay no heed to internal or international politics.

NORMAN CRUMP.

LONDON, *27th June*, 1924.

PREFACE

THE substance is here reproduced of a short course of lectures on the Foreign Exchanges, which the writer was invited to deliver in the early part of the current year before the members of the Institute of Bankers, and which were afterwards published in the Journal of the Institute. To justify their reappearance in book-form a few words of explanation appear necessary. It is manifest, in view of the able and exhaustive treatment that the abstract theory has received in the well-known treatise by Mr. Goschen, and in other standard works, that it would tend to no useful purpose to serve up a mere *réchauffé* of those general principles which are already familiar to all educated men; and that simply to say over again what has been much better said before would be only trifling with the reader. More than this is required, and more has been attempted.

The difficulties inherent to the study of the exchanges (and that there are difficulties will scarcely be denied) are ascribable, not to failure to grasp the import of the few simple propositions that form the basis of the science, but to the perplexity attendant on the

application of abstract principles to the solution of problems encountered in the merchant's every-day experience. What the man of business wants is a theory so stated and so illustrated as to be capable of being easily adapted to actual use—a theory which, by enabling him to understand why a particular rate has risen or fallen in the past, may help him to judge for himself whether it is likely to rise or to fall in the immediate future.

Bearing these requirements in mind, the writer (who has gained his experience at first-hand) has endeavoured to render his exposition as practical as possible, and, at the risk of overburdening it with technicalities, has illustrated each successive step by reference to actual transactions and by numerous instances derived from the course of the exchanges. As he writes, too, for busy men, he has also aimed at plain directness of statement, in order that he who runs may read, and, reading, understand.

LONDON, *December*, 1892.

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THE ABC

OF

THE FOREIGN EXCHANGES

I

INTRODUCTORY

What are the Foreign Exchanges?—Our foreign trade.—Barter.—
Instance of a barter.—The use of money.—Bills of Exchange.

LIKE many other of the cumbrous and archaic pieces of jargon that enter into the language of commerce, the term “Foreign Exchanges,” taken by itself, is so vague as to convey scarcely any definite image to the mind of those to whom use has not rendered it familiar. In expositions of the theory it is usually described as an explanation of the means by which the mutual indebtedness of nations is paid off and cancelled:—

“The system by which commercial nations discharge their debts to each other.”—*Ency. Brit.*

or, in a narrower sense, of the principles on which foreign bills of exchange are created and dealt in, and on which their price is fixed; but in actual practice we

almost invariably find it employed with the signification of rates of exchange :—

“The foreign exchanges are moving against us.”—*Economist*, 9 h April, 1892.

“Bills were in small supply, and the tendency of the exchanges was against this country.”—*Times*, 8th April, 1892.

In America the ambiguity goes even further, “exchange” there being an expression that commonly passes current for “bills of exchange” :—

“The National Park Bank buy and sell foreign exchange.”—Advertisement in *New York Chronicle*, 9th April, 1892.

The same phrase is used loosely in England.

The great basis of international indebtedness is foreign trade; and the foreign trade of this country, in the settlement of which the foreign exchanges come into play, is on a scale of great magnitude. For the year 1891 our imports and exports amounted together to £682,000,000, and it may be taken for granted that the whole, or practically the whole, of these vast transactions were settled by means of bills of exchange.¹ In 1923 the grand total was £1,983,916,935. Our imports are principally articles of food and raw materials. We have to obtain from abroad those commodities which we cannot produce ourselves, such as tea, coffee, sugar, &c.; those again of which we cannot raise sufficient for our needs, such as wheat, wool, &c., and, lastly, those commodities and manufactures which

¹ Telegraphic transfers, which are now largely used for effecting payments between distant countries, may be regarded as bills of exchange drawn at sight.

we can only produce at a disproportionate cost. On the other hand, we send away manufactured goods, and such commodities as we are best fitted to produce.

Commerce, says McCulloch, is simply, as its name imports, “the exchange of commodities for commodities.” Each country keeps, so to say, a trading account with the rest of the world—an account which it debits with what it gives and credits with what it receives. The debits act as a set-off against the credits, and only the balance is left for settlement in money. As regards our own foreign trade, the United Kingdom every year receives considerably more than it gives, but the difference, as will afterwards be seen, arises partly out of transactions of a financial nature, and is partly a return for services rendered, so that it does not necessarily fall to be paid for.

In a more primitive state of society, before the use of money became general, commodities must, to a great extent, have changed hands by way of actual barter, and of one such transaction, that occurred about 3000 years ago, we happen to possess a very exact record. It relates to the building of Solomon’s Temple. Being in want of timber, Solomon writes to a neighbouring monarch, asking the latter to supply him with cedar and fir, and offers in return to send wheat and oil. The reply comes as follows :—

“And Hiram sent to Solomon, saying, I have considered the things which thou sentest to me for : and I will do all thy desire concerning timber of cedar, and concerning timber of fir. My servants shall bring them

down from Lebanon unto the sea : and I will convey them by sea in floats unto the place that thou shalt appoint me, and will cause them to be discharged there, and thou shalt receive them : and thou shalt accomplish my desire, in giving food for my household. So Hiram gave Solomon cedar trees and fir trees according to all his desire. And Solomon gave Hiram twenty thousand measures of wheat for food to his household, and twenty measures of pure oil : thus gave Solomon to Hiram year by year.”¹

As there was no question here of a balance either one way or the other, this was a case of barter pure and simple ; and though we no longer transact business in this regal fashion, yet the result, that of an exchange of commodities, is precisely the same, the only difference being that we now transmute all values into terms of money, and if there should be a balance over, insist on payment of it.

The chief function of money, political economists tell us, is to serve as a medium of exchange. It is a “common denominator” of all things that have an exchangeable value. We were taught at school to compare the values of different fractions by reducing them to a common denominator, and, in the same way, if we wish to compare the value of the labour embodied in a sack of wheat with that embodied in a sack of coal, we inquire the respective prices, which are an expression of that value in the common terms of money.

¹ 1 Kings v. 8—11.

Instead, however, of settling our foreign bargains in actual coin, in which case every separate export or import of goods would need to be followed by a corresponding import or export of precious metal to pay for it, we simplify matters by employing paper counters or bills of exchange, the use of which is illustrated by the familiar theory of the foreign exchanges.

II

THE THEORY OF THE EXCHANGES

How the settlement is effected when the transactions balance,—And how it is effected when the amount to be received exceeds or falls short of the amount to be paid.

IF we take any two countries that trade together, such as the United States and the United Kingdom, and assume that each buys of the other commodities of precisely the same value, which we may put at 10 *x*, thus :—

UNITED STATES.		UNITED KINGDOM.	
A.	B.	C.	D.
<i>Dr.</i>	<i>Cr.</i>	<i>Dr.</i>	<i>Cr.</i>
To Piece Goods, &c., bought from the United Kingdom, value 10 <i>x</i> .	By Wheat, &c., sold to the United Kingdom, value 10 <i>x</i> .	To Wheat, &c., bought from the United States, value 10 <i>x</i> .	By Piece Goods, &c., sold to the United States, value 10 <i>x</i> .

it is evident that, as the matter stands, the importer A in the United States must remit 10 *x* units of gold to D in the United Kingdom, and that C in the United Kingdom must remit 10 *x* units to B in the United States, so that the money will have to travel half-way across the world and back again.

Now, says the theory, seeing that A and C have

each to pay 10 x , and that B and D have each to receive that amount, why not save the trouble and expense of this useless journey by arranging that A should pay the money to his neighbour B for C's account, and that C should pay his neighbour D for A's account? • It can be very simply done. Let B write out an order, or bill of exchange, instructing C to pay D, let A give B 10 x for the bill and remit it to D, and let D present it to, and get his money from, C. The whole settlement will then be effected by means of the one bill and without transmission of a single coin, thus :—

UNITED STATES.		UNITED KINGDOM.	
A.	B.	C.	D.
Importers of British Goods.	Exporters of American Goods.	Importers of American Goods.	Exporters of British Goods.
A buys the draft from B and remits it to D.	B draws on C.	C pays it to D.	D receives the draft from A, and presents it to C.

Exactly the same result would have been arrived at if, instead of B drawing on C, D had drawn on A :—

D draws on A,
 C buys the draft and remits it to B,
 B presents it to A,
 A pays it ;

but it is clear that if D draws on A, as well as B on C, they would both find it difficult (and without the

intervention of a third party—the foreign banker—impossible) to dispose of their bills to advantage, inasmuch as the importer in both countries, who is the natural buyer of the paper created by exporters, would according to the hypothesis pay for the goods he had purchased by giving his acceptance, and would therefore have no occasion to buy a remittance.

So far, it has been taken for granted that, while the whole of the sellers on the other side prefer to draw on London, the whole of the sellers on this prefer their customers to remit; but, as such unanimity of arrangement does not prevail in practice, let us put the case in which, though the majority of the bills originate abroad, as is actually the fact, a certain proportion, say 10%, are drawn from the United Kingdom. The theory still holds good, but the application of it has to be modified, as follows:—

UNITED STATES.		UNITED KINGDOM.	
A.	B.	C.	D.
Importers of British Goods.	Exporters of American Goods.	Importers of American Goods.	Exporters of British Goods.
A buys 9 x from B and remits it to D.	B draws 9 x on C.	C buys 1 x from D and remits it to B.	D draws 1 x on A.
A pays D's draft for 1 x to B.	B receives 1 x from C.	C pays B's draft for 9 x to D.	D receives 9 x from A.

The effect of drawing from this side, it is seen, is simply to diminish the amount that would otherwise be drawn from the other.

Lastly, we have to ask how the mutual indebtedness is cancelled in the event of the amount to be received by the one side exceeding what it has to pay. Say we are creditors for $10x$, as before, but only owe $9x$ (see Table below).

As A can only find bills to the amount of $9x$ in the market, he must necessarily send the balance of $1x$ in gold. The result would be the same if D drew on him, for as the buyer of the draft could not, according to the conditions, be indebted to the United States, this would be merely substituting one creditor on this side for another.

UNITED STATES.		UNITED KINGDOM.	
A.	B.	C.	D.
<i>Dr.</i> Importers $10x$.	<i>Cr.</i> Exporters $9x$.	<i>Dr.</i> Importers $9x$.	<i>Cr.</i> Exporters $10x$.
A buys $9x$ from B and remits it to D. A remits $1x$ in gold to D.	B draws $9x$ on C.	C pays B's draft for $9x$ to D.	D receives a draft for $9x$ from A, and presents it to C. D receives $1x$ in gold from A.

III

ENGLAND DRAWS FEW BILLS, BUT ACCEPTS MANY.—THE REASON AND THE RESULT

If two countries buy of each other, only one of them need draw.—Why London has become the world's settling-place.—The foreign exporter would rather draw on London than have us remit;—And the foreign importer would rather buy a remittance than accept a draft.—It suits us very well to fall in with this arrangement, and consequently our foreign trade is settled almost entirely by means of bills on London.—The rate of exchange between any two countries is fixed by the one that draws the bill;—Hence, the exchanges on London are controlled from the other side;—And, normally, the foreign trader naturally watches their fluctuations with greater interest than the British trader.

It has been shown that, if two countries buy of each other to the same amount, their transactions need not give rise to two separate sets of bills, but that, on the contrary, if the foreigner draws on us to the full value of his exports, the bills so created will be sent as remittances to the exporter on this side and will pay him for his sales. Conversely, if the British exporter draws, there is no necessity for the other side to do so.

What then are the facts? Does the United Kingdom, generally speaking, draw on abroad, or does the foreigner take the initiative by drawing on London?

As a matter of fact, both sides draw; but, as all who are acquainted with the customs of trade are well

aware, the bills drawn by Great Britain on abroad are vastly outnumbered by those drawn from abroad on London.

Owing chiefly to the magnitude of our trade, but also to several contributory causes—such as the stability of our currency; the certainty that a bill on London means gold and nothing but gold¹; the facility with which those who deserve credit can obtain it here; our freedom from invasion, or any chance of invasion, &c.—London has become to a great extent the settling-place of Europe and the world, and the seller, wherever he may be, of a good bill on London can always be sure of finding a buyer and of realizing a fair price. As the sale of a bill, moreover, carries the valuable advantage of ready money and a speedy turnover of capital, it is invariably preferred by the foreign exporter, who has consigned or sold produce to us, to the alternative plan of awaiting remittances from this side. The foreign importer, too, who has to pay for the goods he has bought, would rather do so by remitting to London than by allowing us to draw upon him. In the former case, the rate he has to pay depends on his own success in higgling; in the latter, it is fixed by a London bill-broker, who has not the same interest in the matter.

¹ It is true that since the war London has not been a free gold market. But no one believes that we will not, sooner or later, return to a full gold basis, and meanwhile sterling has remained one of the most stable currencies in the world. The London money market has been threatened with competition from other centres, such as New York and Amsterdam, but the experience of London discount houses and bill-brokers has enabled Lombard Street to preserve its pre-eminence.

If the same considerations held good on this side also, our merchants and manufacturers might perhaps object to letting the foreigner have it all his own way; but, on the contrary, it appears to suit both buyers and sellers very well—the former, because in the majority of cases they would scarcely know how or where to buy suitable bills, and the latter, because the drawing and negotiation of a foreign bill requires a certain amount of knowledge of the exchanges, which they do not always possess, and entails a certain amount of trouble, which they would gladly be spared. There is also more risk of loss in drawing. In the latter case they have only their correspondent to look to, while on a London remittance they have the additional security of the other parties to the bill.

Practically speaking, therefore, the settlement of our foreign trade is effected by means of bills of exchange which are drawn and negotiated abroad, and are accepted and paid in London.

To the student of the exchanges this fact is of considerable importance, for, as the rate of exchange between two countries—the price at which bills on the one are sold in the other—must be *fixed by the one that draws and negotiates the bill*, it follows that the exchanges between England and most other countries are controlled from the other side, and that we in London have scarcely part or say in the matter. The rate of exchange, for example, between England and the United States is fixed in New York; between England and Brazil, in Rio; between England and Turkey, in

Constantinople; and so on. There may be exceptions, of which the Indian exchange is the most notable, but that is the general rule, and it is one that should be carefully borne in mind.

The same fact also supplies a reason for the solicitude with which the foreign trader watches the fluctuations of the exchange, and for the utter indifference with which before the war they were regarded by the British trader. To the former, who intends maybe to draw a few hundred pounds on London in a day or two against the shipment he is preparing, the difference between selling his draft next week instead of this may mean, if the rate should move in his favour, the gain of an additional $\frac{1}{2}\%$; but to our home manufacturers, who used to sell their wares in sterling and stipulate for payment in bills on London, the see-saw of rates was but of academic interest. They might pay attention to the course of discount, because they may have to melt some of their paper before pay-day comes round; but in pre-war days the course of the exchange—the question of the rate rising or falling—hardly concerned them at all.¹

It is not sought to detract from the influence of the English-drawn foreign bill, or, as might be imagined, to explain it away altogether. On the contrary, paper to a considerable amount is, and will continue to be,

¹ *Indirectly*, as the Lancashire manufacturers used to find to their cost in the case of the silver exchanges, some of the rate-fluctuations might concern them a great deal; but that is quite another matter. The same applies to the post-war position, but this is dealt with later.

negotiated in London (though the total, if compared with that of the paper on London negotiated abroad, would appear quite insignificant). The object in view is merely to bring into prominence, and to impress on the reader, the essential principle that, while the position of every rate of exchange is the outcome of the market conditions *in the two countries combined*, the predominant mass of the dealings take place on the other side, so that, in normal times, the real significance of the fluctuations can only be grasped by viewing them from the foreign standpoint.

IV

THE PAR OF EXCHANGE

Meaning of par.—The ideal par is an indeterminate quantity;—But a Mint Par is fixed and invariable.—What Mint Par means, and how it is arrived at.—The French, German and American pars.—Why the pars are of importance to business men.—The legal relationship of different currencies is not necessarily their actual relationship.

THE definition of the word “par,” as given in the Dictionary, is a “state of equality.” Two things are on a par with each other when the one is just as good as the other, and there is nothing to choose between them. Consequently, an exchange has been conducted at par when that which was given is on a par with, or equal to, that which was received. There must be neither profit nor loss on the transaction, and neither party to it must gain any advantage at the expense of the other.

A favourite illustration, and the one commonly met with, is the exchange with Australia, which is selected because it saves the necessity of comparing two different systems of currency. If there were no debts owing on either side, we are told, and if England and Australia each bought of the other commodities of precisely the same value, their accounts with each other would just balance, the demand for bills would exactly equal the supply, £100 in either country would purchase a draft

for precisely £100 on the other, and the exchange would be at par.

This is no more than an assumption, however. As there are no possible means of knowing when the demand for bills exactly equals the supply, it cannot be proved, but is only supposed, that under such circumstances the exchange would stand at par.

Then again, even if the Australian were charged exactly £100 for a cheque of that amount on London, is it absolutely correct to say that the exchange has been conducted at par? Par implies equivalence; and the question is, whether the title which the Australian has acquired to a hundred sovereigns lying on the other side of the earth is really equivalent to the hundred sovereigns that he has just parted with. If interest is to be admitted into the calculation--and there seems to be no valid reason why it should not--obviously the exchange has not been effected at par, inasmuch as five or six weeks must elapse before he can claim and make use of the money: and until he obtains it he is losing interest on the hundred pounds that he paid away. Practically, however, it matters nothing which way we take it; and the question is only raised to show that opinions may differ as to what constitutes the actual equivalence demanded by an ideal par.

Another pertinent question, repeatedly put since the war, is, "How far will my £100 go in each country, how much can I purchase with it? Or, how much am I likely to be able to purchase with it in three or six months' time?" In the opinion of some economists,

the answer to that question lies at the root of many of the post-war exchange fluctuations.

That to which exchange-dealers and cambists give the name of par is something much more matter-of-fact and comprehensible. Their par of exchange, distinguished as the Mint Par, is the fixed intrinsic value of the currency-unit of one country, expressed in terms of the currency of another, which uses the same metal as a standard of value, and this definition holds good even now, when the majority of currencies consist mainly of paper. The value of a currency-unit is taken to depend on the quantity of pure metal that it contains, *as fixed by law*; and the Mint Par tells us how much of the other country's currency contains, *according to their law*, precisely the identical quantity of the same pure metal. It therefore means value for value in fine gold between gold-using countries, and value for value in fine silver between silver-using countries.

A comparison between the currency units of England and France will illustrate the principle. As to the former—the English sovereign—it was provided by the Act 56, Geo. III., cap. 68 (22nd June, 1816), that the gold coin of this realm should hold such weight and fineness as were prescribed in the then existing Mint indenture,¹ that is to say, that there should be nine

¹ The actual wording of the ancient Mint indenture referred to is :—
“ Every pound weight troy of all the monies of gold aforesaid shall be in value forty-six pounds, fourteen shillings and sixpence, and shall be in fineness at the trial of the same twenty-two carats of fine gold and two carats of alloy in the pound weight troy, which standard aforesaid of twenty-two carats of fine gold and two carats of alloy in every pound weight troy our Sovereign lord the King doth will and

hundred and thirty-four sovereigns and one ten-shilling piece contained in twenty pounds weight troy of standard gold, of the fineness at the trial of the same of twenty-two carats fine gold and two carats of alloy in the pound weight troy. An ounce troy of standard gold is therefore coined into $3\frac{1}{4}\frac{2}{10}$ sovereigns, which amount, expressed in terms of the currency, is £3 17s. 10½d., and this in common language is called the price of an ounce of gold. In other words, an ounce of standard gold and £3 17s. 10½d. are synonymous and interchangeable terms.¹

In the first schedule to the Coinage Act, 1870, the *metric* weights of all our coins are given, which is a great convenience when we have to compare them with foreign ones. That of the sovereign is 7·98805 grammes (rather over $123\frac{1}{4}$ grains), and as the law which regulates the French monetary system² requires

ordain and establish by these presents to be the right standard of crown gold." Until 1816, guineas were the principal gold coin of the country, and £46 14s. 6d. really means $44\frac{1}{2}$ guineas. Twenty pounds troy of standard gold are now coined into $934\frac{1}{2}$ sovereigns, equal to 890 guineas, thus preserving the former proportion between the weight and value of the coin.

¹ An ounce of fine gold is equivalent to £4 5s. This point is of importance in calculating the current London market price of fine gold.

² The monetary unit of France is the silver franc, weighing five grammes, nine-tenths fine :—"Cinq grammes d'argent, au titre de neuf dixièmes de fin, constituent l'unité monétaire, qui conserve le nom de franc"; but the provisions of the law as to gold give it a legal currency and value, independent of its relation to silver.

Loi du 7 Germinal, an XI. (1803) :—

- Art. VI. Il sera fabriqué des pièces d'or de vingt francs
 „ VII. Leur titre est fixé à neuf dixièmes de fin, et un dixième d'alliage.
 „ VIII. Les pièces de vingt francs seront à la taille de cent cinquante-cinq pièces au kilogramme

that 155 twenty-franc pieces shall be coined from one kilogramme of gold, nine-tenths fine, we are now in a position to ascertain what ratio the sovereign bears to the franc.

Asking, by Chain Rule,¹ how many francs are equal to a sovereign, if

$$\begin{aligned} \text{£}1 &= 7.988 \text{ grammes standard,} \\ 12 &= 11 \text{ grammes fine,} \\ 900 &= 3100 \text{ francs;} \end{aligned}$$

we obtain the result,

$$\frac{7.988 \times 11 \times 3100}{12 \times 900} = 25.2215.$$

Again, according to German Mint law, 500 grammes fine gold are to be coined into $69\frac{3}{4}$ twenty-mark pieces,² nine-tenths fine, which gives a ratio to the sovereign of,

$$\begin{aligned} \text{£}1 &= 7.988 \text{ grammes standard,} \\ 12 &= 11 \text{ grammes fine,} \\ 500 &= 1395 \text{ reichsmark;} \\ &= 20.43 \text{ nearly.} \end{aligned}$$

Lastly, the United States coin a ten-dollar piece out of 258 grains gold, nine-tenths fine, making the sovereign worth,

$$\begin{aligned} \text{£}1 &= 123.274 \text{ grains standard,} \\ 12 &= 11 \text{ grains fine,} \\ 232.2 &= 10 \text{ dollars,} \\ &= 4.86\frac{2}{3}; \end{aligned}$$

equivalent to $49\frac{5}{16}$ pence for one dollar.

¹ See page 56.

² This was the pre-war law. The present German currency position is changing so rapidly that one hesitates to give a new definition.

These and other parities are of importance to business men, because in normal times the course of the chief gold exchanges frequently influences the course of the money market, and we can only tell whether a rate is for us or against us by knowing the par, which is the centre about which it oscillates. It must be clearly understood, however, that a Mint Par only expresses the *legal* ratio. When we say that a sovereign is equal to f.25.22c., we mean that this amount of French currency expresses, according to French law, the same weight of gold as is contained in a sovereign, according to English law; but whether, if we were to put 2000 ordinary sovereigns into one melting-pot and 2522 ordinary napoleons into another, we should obtain two lumps of gold of exactly equal value, is another question. It would depend on the state of preservation in which the coins were. The sovereigns might be £10 short of the full weight, and still be within the legal allowance for wear; and so might the napoleons.

The Mint Par depends, in short, not on the coin itself, but on the *legal definition* of it; not on the sovereign *de facto*, but on the sovereign *de jure*; and if every gold coin in this country were debased, and every gold coin in France sweated and mutilated, the Mint Par would still remain the same. Unless and until the law is altered the Mint Par cannot alter.

V

BETWEEN A GOLD-STANDARD COUNTRY AND A SILVER-STANDARD COUNTRY THERE EXISTS NO FIXED PAR OF EXCHANGE.

The weight and fineness of the English shilling compared with that of the Indian rupee.—What the Coinage Act says about gold, and what it does not say about silver.—Bar gold can be turned into money by taking it to the Mint;—But silver can only be turned into money by selling it.—Hence, foreign silver coins are worth not their weight in shillings, but only what they will fetch.—Why the gold coin of India does not serve to establish a fixed par with the sovereign.—How the par is established with a double-standard country.

SEEING that the ratio of value between the English gold-piece and the French gold-piece is arrived at by comparing the weight of fine metal which they respectively contain, let us now apply the same principle to silver, and, by comparing the substance of an English shilling with that of an Indian rupee, try whether we can ascertain the fixed par of exchange between England and India.

Until a few years ago, the weight and fineness of the shilling were determined by the same Mint indenture to which we have already referred, it being further prescribed therein, as regards silver coin, that there shall be sixty-six shillings in every pound troy of standard

silver of the fineness of eleven ounces two pennyweights of fine silver and eighteen pennyweights of alloy in every pound weight troy; that is to say, sixty-six shillings are to contain 5760 grains of silver, $\frac{37}{10}$ fine, or 5328 grains fine, and an ounce of coined silver is worth 5s. 6d.¹ According to Indian Mint law the rupee must contain 165 grains fine silver, so that it should apparently be worth

$$\begin{aligned} \text{R.1} &= 165 \text{ grains fine silver,} \\ 5328 &= 66 \text{ shillings,} \\ \hline &= 2s. 0\frac{1}{2}d. \text{ (nearly); }^2 \end{aligned}$$

but as we very well know that it is not worth anything like 2s. there must be a flaw somewhere.

And yet, if by means of the fixed value given to standard gold through coining an ounce of it into 77s. 10½d. we are enabled to establish a par of exchange with other gold-using countries, why should not the fixed value given to standard silver, through coining an ounce of it into 5s. 6d.,³ enable us to establish a par with silver-using countries?

The Coinage Act tells us why; or, at least, by putting together what the Coinage Act says about gold, and what it does not say about silver, we can infer why. In the first place, it says (Section 4) that, while gold coin

¹ The Coinage Act, 1920, provided that "the First Schedule to the Coinage Act, 1870, as amended by Section 2 of the Coinage Act, 1891, shall have effect as though for the words 'thirty-seven-fortieths fine silver, three-fortieths alloy' . . . there were substituted the words 'one-half fine silver, one-half alloy' . . ." This makes an ounce of coined silver worth about 10s. 2d.

² At present, about 3s. 9½d.

³ At present, 10s. 2d.

is a legal tender to any amount, silver coin is legal tender only to the extent of forty shillings. Secondly, it also says (Section 8) that, “Where any person brings to the Mint any *gold* bullion, such bullion shall be assayed and *coined*, and delivered out to such person, *without any charge* for such assay or coining, or for waste in coinage.” According to law, therefore, anybody—whoever it may be—is entitled to take standard gold to the Mint, and to have it converted into sovereigns at the expense of the taxpayer.¹ Any foreign State, indeed, that may be in want of a cheap and good gold coinage, need but adopt the English sovereign² and send its bullion here, and our Deputy-Master of the Mint will do the work for it quite free of charge.

The Coinage Act does not contain a word, however, that can be construed into permission to take standard silver to the Mint, and to have it manufactured into shillings and half-crowns. That no one may do but the Government, which keeps the coinage of silver in its own hands as a monopoly, and by buying the bullion as cheaply as possible makes a considerable profit on the operation. Consequently, if you import silver, you cannot get it converted into the like weight of coin—as you can gold; and, even if you could, it wou'd not be legal tender, except in driblets. Being nothing more in fact than an article of merchandise, like copper or tin, the only way of turning silver into money is

¹ The expense of manufacturing our standard coin has been borne by the State ever since the year 1666, in the reign of Charles II.

² In Portugal, Brazil and Egypt, the sovereign has (before the war) circulated for many years past.

to sell it in the open market for what it will fetch; and the market-quotations has no more connection with the price charged for it by Government, after manufacture into coin, than it has with the price charged by Elkingtons, after manufacture into teaspoons and candlesticks. Hence, the 165 grains of fine silver contained in the rupee have no *fixed* value in sterling, but are worth $\frac{165}{441}$ of the constantly varying price of an ounce of standard silver; and we are thus led to the conclusion that, owing to the absence of a fixed relationship between the values of the two precious metals, there can exist no fixed par of exchange between a gold-standard country, like England, and a silver-standard country, like India.¹

Another question arises. As gold coins of a fixed weight and fineness circulate in India, why not establish a par by comparing the sovereign with the mohur,² which contains 165 grains fine gold? Why this cannot be done is because the mohur is not a legal tender, and has no fixed value. It is simply a gold medal, the existence and use of which are explained by the circumstance that, as a considerable amount of gold finds employment in India for various purposes, and, as any one taking it to the Mint may have it coined on payment of a small charge, it is sometimes convenient

¹ This paragraph was written in 1891, before the Indian mints were closed to the free coinage of silver. See Chapter XXXIV. for a description of the present relationship between sterling and the rupee.

² The mohur is a gold rupee. Its nominal value is fifteen silver rupees, representing an original ratio between silver and gold of 15 to 1.

to have the weight and fineness certified in this manner, instead of each man having to weigh and assay for himself. The mohur passes from hand to hand as a commodity, and, like the sovereign or any other gold coin, is bought and sold on the basis of the current market-price of gold.

One more case remains to be considered—that of the so-called double-standard countries. In many States, of which the most prominent are France and the United States of America, the right exists on the part of the debtor to discharge his liabilities at his option in either of the two metals at a ratio fixed by law. Such countries are said to possess a double standard of value; but as none of them will give silver coin, weight for weight, in exchange for standard silver bullion, while all give gold coin in exchange for standard gold bullion, the latter metal alone is practically the real standard by which all values are measured.¹ For exchange purposes they may therefore all be classed as gold-standard countries, the par of exchange being established, as we have already seen in the case of France and the United States, through the medium of their gold coin.

¹ The mere possession of a double standard is not the same thing as bimetallism, an essential feature of which is the open mint, ready to coin any quantity of either gold or silver that may be brought to it.

VI

THE PRE-WAR RISE AND FALL OF THE EXCHANGE

If the demand for bills on London exceeds the supply the price rises.
—The point at which other means of remittance become available is the extreme limit of the rise;—But the limit for the time being is the rate that bankers will draw at, and this depends ultimately on the cost of covering their drafts.—Why allied exchanges should rise together and fall together.—A fall of the exchange.

CONFINING ourselves to pre-war conditions, whenever a Paris exporter is able to sell his draft on London at the exchange of 25·22 per £, theory bids us believe that the demand for remittances to this country must have chanced to tally with the amount on offer. No means exist of putting this assertion to the proof; but, on the other hand, as no definite reason can be alleged why the Mint Par with Paris should not be identical with the ideal par, it is customary under such circumstances to assume—though solely on the ground that Fcs. 25·22 represent as much fine gold as £1—that demand and supply actually were equal.

But if they are admittedly unequal: what then? What happens if more bills are wanted than are offered for sale? Of course, the price rises. As buyers find themselves in the majority, and perceive that there are not sufficient remittances to go round, they bid against

each other, and bills on London go to a premium. The market conditions may be such that sellers ask $\frac{1}{4}\%$ more for the pound sterling than its normal value, and unless the intending buyers can discover any cheaper mode of remitting they will have to pay it. But the advance in price cannot go beyond the point at which other means of remittance become available. It cannot, under ordinary conditions, such as ruled before the war, go beyond 10 centimes per £, because that is about what it costs to send gold from Paris to London; and if the Bank of France, therefore, is willing to cash its notes in gold to any extent, the exchange on London will attain its maximum at par, plus 10 centimes, or at 25.32. An ordinary Londoner wanting to send a pound to Scotland would be affected by precisely the same considerations as influence the French importer. Like the latter, he wishes to send the money as cheaply as possible. If he encloses the sovereign itself in his letter, he must pay 2*d.*, or nearly 1% for "registering" it; but as he can obtain a Postal Order, which is nothing but a bill of exchange, for 1½*d.*, he gives it the preference; and the Frenchman gives preference to a bill if he can buy one at anything less than $\frac{3}{8}\%$ premium, which is what he must pay for carriage and insurance of specie.

Granting, then, that the price rises, let us suppose that in the presence of a demand for remittances to the amount of £100,000, only £60,000 are tendered for sale. Somebody, it appears likely, will have to go short; but are we to assume that those who cannot get bills will have to remit £40,000 in gold, and that the

competition of all these intending buyers will force the rate up to 25.32? Not at all. If the possibility of remitting were absolutely limited to the bills on the market, there would no doubt be a large and sudden advance; but the bidding need only be raised a centime or two to tap an almost inexhaustible source of supply—that of bankers' drafts. In other words, if the remitter cannot obtain a ready-made bill, he must pay a little more, and have one made to order. That a bank-draft should cost more than a trade-bill is (quite apart from the better standing of the drawer) only natural, for the banker, besides having to remunerate his correspondent, either by paying a trifling commission, or by keeping a balance in London free of interest, must also add on a certain percentage for the trouble of drawing and advising the bill, and of providing cover. The percentage will only be small, however, as the competition of other bankers will keep profits down to a minimum. Taking all things into consideration, say that he is willing to draw on London at 25.25—if so, then 25.25 is the extreme price that the drawer of the trade-bill can hope to obtain, and in all probability he will have to take less.

The price that a bill will fetch in a rising market is limited, therefore, by the rate that bankers will sell at; and the rate that bankers will sell at is limited by competition amongst themselves. To get to the bottom of the matter, we have still to ascertain what the banker bases his price upon. After establishing his base, he adds perhaps one centime profit for himself, and another for his correspondent, but what does he add them to?

A moment's consideration will show that he must add them to the *cost of covering his draft*, which is the first thing he takes into account. It may be that he holds a stock of London bills, having bought when the price was lower, or that he has accumulated a large balance over here; in that case the rise is all profit. But, if the demand continues, his portfolio and his balance will sooner or later be exhausted, and he must decide on some form of remittance. What he now does is to buy bills on some other country—on Belgium, or Italy, or Germany, for instance, whichever comes cheapest—to send them to his correspondents in those countries, and to request that they will remit for his account to London. This is a form of operation that involves double commission, &c., and that consequently can only be resorted to with advantage on a broad margin; but it is bound to come at last, and the result will be that the exchanges of other European countries that enjoy good credit will be set moving in the same direction as the London rate. The general rule of European exchange movements is, that all rise together or all fall together, and if one of the rates fails to respond to the common tendency, it is usually because there is something wrong. Thus, if the value of the Italian or Spanish currency-unit is falling, when that of the French, Belgian, and Swiss franc is rising, it may be taken for granted that there is a screw loose in Italian or Spanish finances.

So long, accordingly, as suitable bills on other countries can be had in quantity in the Paris market, the

rise in the London rate will be held in check; but in proportion as they become scarcer, the price must go higher and higher, until finally the banker finds that, instead of buying bills on Berlin or Antwerp, and paying the extra commission and bill-stamp, it will come cheaper to cover his London agent by drawing gold from the Bank of France, and sending it across the Channel. Supposing, for example, that his Berlin correspondent charges him M.20.48 for each pound remitted to London, and that the price in Paris of a bill on Berlin for M.20.48 now amounts, when all expenses are allowed for, to Fcs.25.33; then each pound sent to London viâ Berlin will cost him Fcs.25.33. But against this the banker knows that the Bank of England will buy as much gold as he likes to offer at the fixed price of 77*s.* 10½*d.* per ounce standard, which works out equal to an exchange of 25.22; that is to say, if he sends to London 2522 francs' worth of bullion, and pays all charges himself, he will get credit for £100. The charges he estimates at 10 centimes per £; so that by laying out

Fcs.2522 on bar gold,
and 10 on carriage and insurance,
together Fcs.2532,

he receives credit in London for £100. Obviously, therefore, if other means of remittance cost more than 25.32 per £, he will resort to a gold-shipment, and if gold can be had without difficulty, the London exchange will go no higher.

Once the circumstances of a rise are understood, those of a fall of the exchange present little difficulty. Slackening of demand or increase of supply are, of course, the reasons that account for a drop, and the extent of it will be limited by the anxiety of exchange dealers to pick up bargains; for, just as an advance of one or two points in the bidding for bills brings out fresh supplies, so a reduction of one or two points in the offers brings out fresh demands. If the fall should be continuous, it must almost inevitably force down the other exchanges, as bankers will sell drafts on those places which are quoted high, and will use their purchases of London paper as cover. In the end we arrive at the opposite extreme; that is to say, London paper becomes so cheap that the banker uses it to buy gold at the Bank of England, and, after paying the expense of conveyance to Paris, can earn a quick and safe profit by selling it to the Bank of France at tariff price. Thus, if a bill on London for

£100 can be bought as low as	Fcs.2512
and if the expense of getting the gold over	
can be cut down to	9

then a hundred pounds' worth of gold delivered
in Paris will cost Fcs.2521

showing a profit of 1 centime in the £; and, as no restriction whatever is placed on the outflow of gold from London, the exchange can go no lower.

VII

GOLD-POINTS

The marketability of gold.— Definition of gold-point.—It is not possible to fix a gold-point with exactitude.—The existence of gold-points implies a legal freedom to ship gold from one country to another.

OF the numerous commodities that are capable of being exported from one country to another, there is one, and one only, of which it may be said that, whatever state the markets are in, the owner is always sure of finding an immediate and safe buyer, and of selling at the same fixed price. Send diamonds, or silver, or securities, or produce to be realized in London, or in any other great commercial centre, and you will have to sell when you can, to whom you can, and as best you can; but send gold, and the State itself (in all gold-standard countries) will not only buy it of you to any amount without delay or demur, but will pay for it at a price which, being established by law, is known beforehand and admits of no uncertainty. Hence it is that, when the settlement of international indebtedness cannot be completely effected by means of bills, the final balance is adjusted in gold.¹

¹ It will be appreciated that this no longer applies in the above simple form to the vast majority of countries, where the export of gold is prohibited by law.

By buying gold in one country and shipping it for sale in another, a certain rate of exchange is yielded, which is called a gold-point—the rate produced by buying at home and selling abroad being the export-point, and that produced by buying abroad and selling at home being the import-point. In both cases the charges that the operation entails must be either added to the price or deducted from the proceeds. A sovereign is composed of just as much fine gold—about $7\frac{1}{2}$ grammes—as is contained in 25.22 francs. If the Paris banker send 732 grammes of gold to London, it will cost him 2522 francs, plus charges, and will realize £100; if he sends for it back again it will cost £100, and will realize 2522 francs, minus charges. Put the charges at 10 centimes per £, and we have 25.32 as the export gold-point from France to England, and 25.12 as the import gold-point into France from England.

The charges, it is to be observed, can only be estimated, as they vary with the magnitude of the operation, and according to the facilities possessed by those who undertake it. On a big shipment, in pre-war days, they might perhaps be cut down to 8 centimes per £, or even less; on a small one they would possibly run up to 11 or 12. Then again, some houses can get better terms for freight and insurance than others, and, in fact, are at all points in a more advantageous position for transacting the business. A gold-point, accordingly, cannot be stated as a definite figure; and though the French import-point has been taken at 25.12, the metal

would probably have been sent over if the rate touched even 25.15, with a downward tendency.

It is of course obvious that, if the price of London paper rises to the export gold-point, and if the remitter is free to export gold, it is immaterial to him whether he buys a draft or sends gold, but that he would never think of paying more; on the other hand, if the price falls to the import-point, it is the same thing to the seller of a bill whether he accepts 25.12 for it, or asks his correspondent to send gold, but he would certainly refuse to take less; and, provided that the import and export of gold is free, the gold-points thus mark the highest level to which an exchange may rise, and the lowest to which it may fall.

VIII

THE LONDON COURSE OF EXCHANGE

All exchange business is transacted in London.— A retrospect.—The Royal Exchange.—Dealings in bills.—The course of Exchange.—The double quotation. —Other capitals quote bills in the home currency, but London quotes some in sterling and some in foreign money.—Advantages of the practice. —Its drawbacks. —Some exceptions to the rule of quoting here as they quote abroad.—Anomalies in the list of places.—The course of exchange in 1921.— Cable rates.—How newspapers quote exchange rates.

THE next stage in the inquiry is to consider on what lines exchange-dealings are managed over here; and, in this connection, the first point that attracts attention is that there is but one market in the United Kingdom for the negotiation of foreign bills. All business of this nature centres in London. The provincial drawer either remits his paper direct to a “foreign banker” here, who buys it of him at the current price, or he hands it to his local banker, through whom it at once finds its way to the London agent, and thence to the bill-broker, who offers it for sale in the market.

A few years ago, the bi-weekly meeting of bill-brokers in the Royal Exchange was abandoned, as it was found that the vast majority of business was transacted by cable and telephone, and that these meetings had ceased to have a useful purpose. The following description of

dealings "on 'Change" has been retained. The reviser's motive in so doing was in part a sentimental one, as he was loth to see what was for many years a great British institution allowed to sink into oblivion. At the same time, these pages should be read, as they do afford an insight into the methods of quoting rates and the conditions that govern these quotations. It is a matter for gratification to see that since this book first appeared, many of the author's recommendations for the improvement of the table showing the London course of exchange have been carried into effect.

There is perhaps no public edifice in the City which is better known or less understood than the Royal Exchange. Familiar as its outlines are to the thousands of Londoners who daily pass by it, there is not one in a hundred who can tell why it was erected, or what purpose it serves. Nor, if they should enter it in quest of information, would they be much the wiser, for at most times they would find the interior either entirely deserted or only tenanted by a few loungers. It was not always so, however. The Royal Exchange was intended as a meeting-place for merchants, and up to a quarter of a century or so ago London merchants actually did meet there, each separate branch of trade collecting in its own corner or round its own particular pillar. But, as the various sections grew in numbers, it became more convenient to make homes for themselves in the localities that they specially affect, and the coal, wool, corn, produce, and other interests now possess their own separate Exchanges.

Until a few years ago, one important group still remained true to its allegiance. Twice a week, on Tuesdays and Thursdays,¹ the Royal Exchange used to wake up for a brief space. Immediately after luncheon-time those who had business to transact in foreign bills² began to gather at the eastern end of the courtyard, and for about an hour 'Change was held. The assemblage, which was never a very large one—not more perhaps than five or six score at the outside—consisted of a small number of brokers and of the chiefs of all the great foreign banking-houses. Of bankers, in the ordinary acceptation of the term, scarcely one was to be seen, except on rare occasions: London being perhaps the only great capital in the world of which the home-banking interest was not regularly represented on

¹ Formerly Tuesdays and Fridays were the only days on which foreign mails were dispatched from London, and on those days alone were foreign bills negotiable on 'Change. It had always been the custom that bills bought on one "post-day" should be paid for on the next; but a notorious case (and not the first) having occurred of a house, that had bought cheques to a large amount, stopping payment before the following post-day, thereby involving the sellers in heavy loss, it was arranged in 1879 that, for the future, all bargains should be settled the next morning, in order that, if a similar case happened again, the cheques sold might be stopped by telegraph. At the same time the second day was altered to Thursday, as it was not to the convenience of the great Jewish houses to pay on a Saturday.

² According to the Bills of Exchange Act, 1882: "An inland bill is a bill which is, or on the face of it purports to be, (a) both drawn and payable within the British Islands, or (b) drawn within the British Islands upon some person resident therein. Any other bill is a foreign bill." A draft on London issued in Paris, or a draft on Paris issued in London, are therefore both foreign bills; but in common language a "foreign" bill is a bill payable abroad, and a bill on London drawn abroad would not usually be so styled.

'Change. There was an entire absence of noise or excitement. So quietly was the business transacted that it was difficult for an onlooker to believe that anything was going on. Now and again one would observe a broker draw a likely buyer aside, covertly exhibit a contract-note, and suggest a price in a whisper. A simple nod of the head, almost imperceptible to a bystander, signified acceptance¹; the broker scribbled down the rate, passed over the contract, which the banker thrust unconcernedly into his pocket, and the bargain was complete. In an hour or so all was over; and the broker hurried back to his office to write out his course of exchange, or list of current prices, a copy of which appeared in the newspapers the next morning.

The table on p. 39 is a list as issued by a leading broker in the year 1891.

The price-quotations were twofold, the better rate being for first-class bank-paper and the worse for ordinary mercantile.² The margin, be it observed, was not the "turn of the market," as in Stock Exchange prices, but represented difference in value, the greater part of which

¹ "When merchants come upon 'Change," says the *Ency. Brit.* (1810), "they are so full of fear and jealousies, that they will not open themselves to one another, lest they should discover what they want to conceal"; and it sagely adds, "no man feigns and dissembles, except when he thinks he has an interest in so doing."

² The sterling exchanges are stated like ordinary prices, the cheaper first, but those expressed in foreign money reverse the order. If we quote the price of bills on Oporto as 41 pence to 41½ for 1 milreis, it would be only consistent to quote those on Berlin as 20.55 reichsmark to 20 51 for £1; and in some of the brokers' lists the difficulty is recognized and dealt with by the peculiar plan of changing the order of the *sterling* rate—Oporto, for instance, being stated as 41½ to 41.

was returned to the buyer in the shape of a better discount-rate. Paris, for instance, was quoted 25.37½ for best paper (large bills) to 25.45 for trade-paper (small bills): assuming that a buyer took one of each

COURSE OF EXCHANGE.¹

LONDON, DECEMBER 8TH, 1891.

	TIME.	PRICES NEGOTIATED.		Meaning of the Price.
		From	To	
Amsterdam	Short.	12 15 ⁸ / ₁₆	12 2 ¹ / ₂	} Guilders and stivers for £1.
Ditto	3 Mths.	12 3 ³ / ₄	12 4 ¹ / ₄	
Rotterdam	"	12 3 ⁸ / ₁₆	12 4 ¹ / ₄	
Antwerp and Brussels	"	25 45	25 50	
Paris	Short.	25 22 ¹ / ₂	25 27 ¹ / ₂	} Francs and centimes for £1.
Ditto	3 Mths.	25 37 ¹ / ₂	25 45	
Marseilles	"	25 38 ³ / ₄	25 45	
Hamburg	"	20 51	20 55	
Berlin	"	20 51	20 55	} Reich-mark and pfennige for £1.
Leipsic	"	20 51	20 55	
Frankfort on the Main	"	20 51	20 55	} Pence for 1 Rouble.
Petersburg	"	22 ¹ / ₂	22 ¹ / ₂	
Copenhagen	"	18 10	18 44	} Kronors and ore for £1.
Stockholm	"	18 12	18 16	
Christiana	"	18 12	18 16	
Vienna	"	11 92 ¹ / ₂	11 97 ¹ / ₂	} Florins and kreutzers for £1.
Trieste	"	11 92 ¹ / ₂	11 97 ¹ / ₂	
Zurich and Basle	"	25 52 ¹ / ₂	25 57 ¹ / ₂	} Francs and centimes for £1.
Madrid	"	41 5 ⁸ / ₁₆	41 7 ¹ / ₂	
Cadiz	"	41 5 ⁸ / ₁₆	41 7 ¹ / ₂	
Seville	"	41 5 ⁸ / ₁₆	41 7 ¹ / ₂	
Barcelona	"	41 5 ⁸ / ₁₆	41 7 ¹ / ₂	
Malaga	"	41 5 ⁸ / ₁₆	41 7 ¹ / ₂	
Granada	"	41 5 ⁸ / ₁₆	41 7 ¹ / ₂	
Santander	"	41 5 ⁸ / ₁₆	41 7 ¹ / ₂	
Bilboa	"	41 5 ⁸ / ₁₆	41 7 ¹ / ₂	
Zaragoza	"	41 5 ⁸ / ₁₆	41 7 ¹ / ₂	
Genoa, Milan, Leghorn	"	26 12 ¹ / ₂	26 17 ¹ / ₂	
Venice	"	26 12 ¹ / ₂	26 17 ¹ / ₂	
Naples	"	26 12 ¹ / ₂	26 17 ¹ / ₂	
Palermo and Messina	"	26 12 ¹ / ₂	26 17 ¹ / ₂	
		} payable in legal currency		
Lisbon	90 days date.	40 ¹ / ₂	41	} Pence for 1 Milreis.
Oporto	90 days date.	41	41 ¹ / ₂	
Calcutta	demand.	1 4 ³ / ₁₆	1 4 ¹ / ₂	} Pence for 1 Rupee.
Calcutta and Bombay	30 days sight, demand, paper.	...	1 4 ¹ / ₂	
New York	demand.	49 ³ / ₈	49 ³ / ₈	Pence for 1 Dollar.

¹ This table should be compared with those given on later pages, in order to see what improvements and changes have been made during the intervening thirty-three years.

and got them discounted in Paris, where bank-rate stands at 3% and market-rate at 2%, the comparative out-turn would have been as follows :—

<i>Bank-Paper.</i>	<i>Trade-Paper.</i>
£1 = 25.37½	£1 = 25.45
Less discount } 12½	Less discount } 19
3 mos. (@ 2%) }	3 mos. (@ 3%) }
25.25	25.26.

showing that, for the superior credit enjoyed by the acceptor of the former, the buyer had in reality only paid one centime per £. In most cases the variation was about ¼%, but in the sterling rates it would be higher.

As regards short paper, to which the explanation of better or worse discount-rates does not apply, the margin may be partially interpreted by pointing out that the “short” quotation is understood to include all bills having up to ten days to run, and that a sight-draft would naturally command a better price than one payable in a week’s time; but where cheques are quoted, it is difficult to discover any apology for a variation of more than two points.

The London practice of quoting some exchanges in foreign money, and some in sterling, instead, as is usually the case elsewhere, of stating all in the home currency, constitutes the chief difference between the Course of Exchange published here and those published abroad. In Paris, all dealings are conducted in francs ;

in Berlin, in marks; in Amsterdam, in guilders, and so on; but in London we transact nearly all our business in *European*¹ bills, in the currency of the country which they are drawn upon. At the present time, there is only one exception, in fact, namely, Portugal, bills on which country are bought and sold in pence, while all others are negotiated in marks, francs, florins, &c., as the case may be. We may even lay it down as a rule that, generally speaking, the exchange is stated in London in the same terms as it is stated abroad; that is to say, as most countries quote the price of London bills in their native currency, we follow suit, but as some capitals, such as Lisbon, Calcutta, Rio, Buenos Ayres, &c., quote in sterling, we quote them in sterling. The advantage of the practice is twofold. In the first place, it facilitates comparison between the rates current here and those current abroad. Thus, if a merchant intends buying a cheque on Paris, he need only look in the newspaper to see how the rate is telegraphed over, and he knows in an instant what he ought to pay: while, if the seller here stated his price in sterling, say as $9\frac{1}{8}d.$ for one franc, or as 15s. $9\frac{3}{4}d.$ for one napoleon, it would require a troublesome calculation to ascertain the parity.² Secondly, we obtain a more

¹ The exchanges with places outside Europe are mostly stated in shillings and pence.

² The inconvenience is very noticeable when we compare foreign lists together, thus:—

Madrid	quotes	Paris and Vienna	in pesetas.
Paris	„	Berlin and Vienna	in francs.
Rome	„	Berlin and Paris	in lire.

manageable fraction by expressing a large unit, such as the pound (the largest monetary unit there is), in terms of a small unit—especially if the latter is subdivided on the decimal system—than by stating the smaller in terms of the larger. To state the franc in terms of a pound would be simply impossible (at $25.22\frac{1}{2}$, one franc is equal to $\text{£}_{100} \frac{4}{9}$); and even if we reduce the pound to pence, it is far easier to convert francs into sterling, or *vice versa*, by taking the sovereign as equal to $25.22\frac{1}{2}$ francs than by taking the franc as equal to $9\frac{3}{4}$ pence; besides which, the latter fraction would be incapable of finer adjustment in practice than $\frac{1}{4}d.$ or $\frac{1}{6}\%$, while the former can be adjusted if need be to $\frac{1}{4}$ centime, which is only $\frac{1}{100}\%$.

On the other hand, it is quite certain that, however familiar quotations in foreign money may become to us, they never speak to the eye like quotations in our own money; and that price movements are far more easily and quickly followed if we see them stated in shillings and pence, than when they are clothed in strange figures. We may calculate with facility in francs or florins, but it is in pounds and shillings that we think.

Turning to the list of places ¹ that London quoted in 1891, we discover other peculiarities, the manner in which

¹ The places enumerated are supposed to be those currently dealt in on 'Change. Constantinople, Cape Town, Valparaiso, Bucharest, and such like, are not quoted, because there are no dealings to record. Drafts may, of course, be purchased in London on almost every town of importance in the world; but business of an exceptional nature would be negotiated in the drawer's office, and not, as a rule, on 'Change. Originally the towns appear to have been placed in the order of their relative importance, the Dutch rate taking the lead;

some of the exchanges are stated (especially those on Germany, Italy and Spain), appearing intended to preserve the memory of a bygone state of affairs. Reference to the old Course of Exchange given in the footnote shows that in former days Berlin was quoted in thalers, Frankfurt in florins, and Hamburg in marcs banco—whence the necessity of setting them forth separately: but differences of currency having been long ago abolished, the existing conditions would be fully satisfied by a single quotation for “Germany,” or “German Bankplaces.” In Italy,¹ also, the currency of the Republic of Genoa formerly differed from that of the Kingdom of Naples, and the currency of Naples from that of Sicily; but United Italy knows but one currency, and needs but one quotation (which, by the way, is all it receives in the exchange lists of Paris, Berlin and Vienna).

The Spanish quotation at that date was still more

and the present arrangement is practically the same as that of half a century ago, though now it has lost its meaning.

COURSE OF EXCHANGE. *Friday, December 10, 1841.*

Amsterdam.....	12.4 $\frac{1}{2}$	4 $\frac{3}{4}$	Trieste.....	9.51	53
Ditto at sight...	12.2	2 $\frac{1}{2}$	Madrid	36 $\frac{1}{2}$	
Rotterdam	12.4 $\frac{3}{4}$	5	Cadiz	36 $\frac{5}{8}$	3
Antwerp	12.4		Leghorn	30.20	25
Hamburg	13.10 $\frac{1}{4}$	10 $\frac{1}{2}$	Genoa	25.77 $\frac{1}{2}$	80
Paris 3 M. D. ...	25.75	77 $\frac{1}{2}$	Naples	40 $\frac{1}{8}$	1
Ditto 3 D. St. ...	25.50		Palermo	119 $\frac{3}{4}$	120
Marseilles	25.77 $\frac{1}{2}$	80	Messina	120	$\frac{1}{4}$
Frankfort	150	1 $\frac{1}{4}$	Lisbon	52	4
Petersburg	37 $\frac{5}{8}$	3 $\frac{3}{4}$	Oporto	52 $\frac{1}{4}$	2
Vienna	9.49	50			

¹ Curiously enough, the list of towns selected to represent Italy ignored Rome.

abnormal. For some occult reason, more space was allotted to Spain than to France, Germany and Belgium combined; and one would certainly have imagined, judging from the Course of Exchange, that our business with the Peninsula was of the first magnitude. Paris and Berlin, in their lists, are able to dispose of the country under "Madrid and Barcelona," but London could not apparently deal with it effectually under less than nine separate headings!

LONDON COURSE OF EXCHANGE

Tuesday, January 18th, 1921.

On.	Usance.	Rate.		On.	Usance.	Rate.	
Amsterdam and Rotterdam ...	cable	11.36	11.39	Lisbon and Oporto	cable	6½	7½
Ditto	3 mos.	11.55	11.60	Ditto	3 mos.	nom.	
Belgium	cheque	56.50	56.70	Copenhagen	cable	2.065	20.85
Paris	cable	59.50	59.70	Christiania	cable	21.20	21.40
Ditto	3 mos.	60.25	60.45	Stockholm	cable	1.757	17.67
Marseilles	3 mos.	60.25	60.45	Scandinavia	3 mos.	nom.	
Switzerland	cable	24.04	24.14	Helsingfors	cable	117.00	123.00
Ditto	3 mos.	24.54	24.64	Buenos Ayres ...	cable	50	50½
Germany	cable	232.00	237.00	Rio de Janeiro ..	cable	9	10
Italian Bank				Athens	cable	49.50	50.50
Places	cable	106.00	108.00	Calcutta and Bombay	demand	1/1½	1/1½
Ditto	3 mos.	nom.		Ditto	30 days'	1/4½	
New York	cable	375½	377½		sight		
Ditto	demand	377	380				
Madrid and Spanish Bank							
Places	cable	28.10	28.20				
Ditto	3 mos.	41½	42				

It has already been shown how the 1891 table differed from that of fifty years earlier, while some of the weaknesses of the 1891 table have been indicated. In the original edition of this book, the author pointed out several ways in which the table could be improved, and also gave an example of how it would be presented. Dealings "on 'Change" are now no more, but the

preceding table, representing the London Course of Exchange for January 18, 1921, is of interest in that it indicates the changes made during the intervening thirty years. Redundant quotations had been repressed, and a distinction made between cable rates and three months' drafts.

The above particulars were extracted from the *Economist* of January 22, 1921. Several points of interest arise. In the first place, the prominence of cable rates will be noted. This means of remittance was only developed with the speed of communication by cable, and is a comparatively modern innovation. It will be readily appreciated that a telegraphic transfer commands the best price in the market; for if a merchant wishing to remit money to New York buys even a first-class sight draft, he has to wait while that draft crosses the Atlantic by steamer, that is, there is a delay of some six days before it can be presented. The purchase of a telegraphic transfer, however, puts him in funds in New York immediately, as the passage of the requisite cable relating to the transaction is practically instantaneous. Applying the maxim given in the following chapter, "the better the bill, the lower the rate," it will be appreciated why cable rates are below those for demand or sight drafts. Another point that arises is that the seller of the telegraphic transfer charges for the cost of the cable. This charge is expressed in the form of a further reduction in the amount of foreign currency he is prepared to sell for one pound sterling.

Little comment is needed on the manner in which the rates were quoted. In practically every case, the rate was in the form to which every one is accustomed, *i.e.* European bills in their native currency, and other bills in sterling. New York, however, had changed since 1891, and in the 1921 table is quoted in cents (not dollars) to the pound. The Spanish cable rate is given in pesetas to the pound, but the rate for three months' bills still preserved the archaic form of pence per peso. The use of the peso was discontinued over fifty years ago, when the monetary system of the country was assimilated to that of France, Belgium and Switzerland.

Exchange business is now entirely, in so far as London is concerned, transacted in the offices of banks and exchange dealers, and in many cases, the rates are fixed over the telephone. The foreign exchange table is now a prominent feature of the daily newspaper, and it presents a record of the Course of Exchange rates during the previous day. In some instances, notably the *Times*, the rates published represent the highest and lowest for the day; in other cases, the rates quoted are the closing rates (buying and selling) for the day. At a time like the present, when rates jump many points in the course of a single day, this distinction is of importance. An example is given in the following chapter.

IX

THE TERMINOLOGY OF THE EXCHANGES

Unless care be exercised, the technical language of the exchanges may prove misleading.—Significance of “rise” and “fall,” “high” and “low,” when applied to rates expressed in foreign money.—“Premium” and “discount.”—“For us” and “against us.”—“Favourable” and “unfavourable.”—What business men mean when they describe a rate of exchange as favourable.—A useful rule of thumb.

UNTIL use and a practical acquaintance with the handling of the exchanges have rendered their distinctive peculiarities somewhat familiar, it is very necessary, in all cases where rates expressed in foreign money are concerned, that care be exercised to comprehend aright the import of their movements; for as “rise and fall,” “high and low,” signify in this connection just the converse of their ordinary meaning, and as the mind does not usually adapt itself without effort to the reversal of accustomed notions, these and similar expressions prove a constant pitfall to the unwary.

First, a distinction must be made between rates quoted in foreign currency and those quoted in sterling. The following rules apply solely to the first alternative. When dealing with rates quoted in sterling, *the rule in every case must be reversed, e.g.* a rise in the Rio rate from, say, 9*d.* to 10*d.*, means a movement *in favour of* Brazil.

A "rise," for example, of the Italian exchange means that more lire and centesimi must be given for the pound sterling. Consequently it is equivalent to a decline in the value of Italian currency, and is therefore *against* Italy. A "fall" of the rate, on the other hand, would betoken improvement.

Again, the higher a broker buys and the lower he sells, the better for his client; and if buyer and seller agree to come to terms by splitting the difference, the former lowers his offer and the latter raises it. Also, if sellers are urgent and press their bills for sale, the rate rises; while if remittances are in great demand, the rate falls.

Though all this is simplicity itself, and though in practice its novelty rapidly wears off, it undoubtedly affords the novice every opportunity to blunder, and little apology is therefore needed for the introduction of a short maxim :

"Buy high, sell low; the better the bill, the lower the rate," which may on occasion turn out to be a friend in need, and is well worth retaining in the corner of one's memory.

Another point that needs attention is the manner in which a rise or fall is described. If we read that a certain rate is a fraction higher, or that it has risen a point, no doubt can exist as to the writer's meaning; but when the City Editor tells us that the New York exchange has improved a little, or that the Paris cheque rate is a trifle better, the information is liable to cause misapprehension owing to its ambiguity, and such terms are better avoided. A rise in the price of cheques

on Paris is better for the English debtor, it is true; but for the English creditor, who has to draw on Paris, it is worse. From the point of view of the money-market the rise is good; but from the point of view of the individual it is good or bad according as he is a buyer of bills or a seller, according as he has to remit to Paris or to draw.

The terms "premium" and "discount" have also been discarded in practice.¹ It is quite correct to speak of a sterling exchange, such as that of Portugal or Brazil, being at a discount when below par; but if we attempt to apply either of these definitions to a rate in foreign money, we are met with the incongruity of having to associate "premium" with a *fall*, and "discount" with a *rise* of the exchange. The par with Italy, for instance, is 25.22, and when the exchange is at 25.72½ the lire is at 2% discount; but it would sound irrational to say that the rate had gone up to 2% discount. "Premium" and "discount" are best confined to those cases—such as England and Australia, France and Belgium, New York and San Francisco, &c.—in which the two places concerned possess the same currency. Thus, Melbourne can quote London at 100 to 101, or it can with perfect propriety state the price as "par to 1% premium."

Lastly, we find the exchanges designated as being "for" or "against" us, as "favourable" or "unfavourable." In usual times, this description is only applied to the chief gold exchanges, to those, namely, of New York, Berlin

¹ An exception is the Lima rate. A quotation of, say, 7½% *premium* means that the rate is *in favour* of Great Britain.

and Paris, and all it means is that the rates spoken of are either over par (favourable) or under par (unfavourable), that is to say, tending either to the import or to the export gold-point. Harmless as it looks, however, the practice of so styling them is unsparingly denounced by political economists, who affect to see in it proof positive that business men are still firm believers in the economic heresy known as the Mercantile Theory.¹ As a matter of fact, the Mercantile Theory has no more to do with the question than the Binomial Theorem. There are perfectly good and simple grounds for regarding a high exchange as advantageous to business interests, and a low exchange as disadvantageous. Rightly or wrongly, cheap money, or a low charge for the loan of capital, is assumed to be better for trade than dear money, because trade is largely conducted on borrowed capital. It greases the wheels of industry, so to say. Now cheap money means a low bank-rate, a low bank-rate goes hand in hand with a strong Reserve, and the strength of the Reserve is dependent to a great extent on the course of the

¹ "Falsar and more misleading expressions cannot be conceived than the terms favourable and unfavourable exchanges. They survive still the memorable refutation of their untruth by Adam Smith; they involve ignorance of the very nature of all trade; they efface the living fact that men buy of foreign countries to procure goods for use and consumption, that all trade is only an exchange of goods. This language is profoundly unconscious that gold is a mere tool. It teaches that gold, or coin, or money is an end, a good thing for its own sake, an article worth giving one's wealth to obtain. It is saturated with the Mercantile Theory, so utterly in vain has Adam Smith written. . . . The value set on favourable exchanges is the greatest intellectual and literary wonder of our age."—*Currency and Banking*, by Bonamy Price.

exchanges. If New York, for instance, is drawing gold from us, thus weakening the Reserve and forcing the Bank to put up its rate in self-defence, a rise of the New York exchange will put a stop to the export, and, what is more, if the rise continues up to a certain point, the gold will begin to flow back again. As a consequence, the Reserve will recover strength, bank-rate will fall, and traders will again be able to discount their customers' acceptance at a moderate charge. This, and nothing more, is the reason for regarding a high exchange as favourable and a low exchange as unfavourable, and it is difficult to see in what respect it is tainted with the false reasoning of the Mercantile Theory.¹

It is well to bear in mind that, so far as exchanges in foreign money are concerned,

High rates are for us, and low rates against us.

The preceding portion of this chapter should be compared with the following extract from the *Financial Times* of April 1st, 1924. The table is largely self-explanatory, while the editorial comments have steered clear of many of the pitfalls alluded to on the previous pages. In one or two instances, the notes might be clearer. The statement that "the Swiss rate gave way 11½ centimes to 24.62" is most ambiguous, and in this instance a reference to the table is necessary. In several cases, too, the reader must stop to think whether

¹ In these days of paper currencies, the above point may appear to be of academic interest, apart from its controversial character. It is not easy to convince a manufacturer complaining of French or German competition that "High rates are for us." Nevertheless, the question is worthy of consideration, and the reviser was unwilling to interfere with the original text to a greater extent than was absolutely necessary; so this section has been retained.

a fall means an improvement or the reverse. Forward rates are explained in Chapter XIII.

FOREIGN EXCHANGES

Movements among the foreign exchanges generally indicated lower values for sterling. French francs improved further to 77.80, a decline in the rate of 65 centimes, while Belgian were quoted $1\frac{3}{8}$ lower at 98 $\frac{7}{8}$. Italian lire also became worth more, the pound commanding $1\frac{1}{8}$ less at 97 $\frac{5}{8}$. Spanish pesetas enjoyed a fresh sharp recovery, the quotation falling .54 to 31.70, while the Swiss rate gave way $11\frac{1}{2}$ centimes to 24.62. All the kroner became dearer, the Danish being most prominent with a decline of $.40\frac{1}{2}$ to 26.45, while the Norwegian and Swedish rates dropped .15 to 31.65 $\frac{1}{2}$ and $.05\frac{1}{2}$ to 16.21 $\frac{1}{2}$ respectively. Rumanian lei appreciated to 830. Czechoslovakian crowns relapsed after their recent strength and were quoted $2\frac{5}{8}$ higher at 144 $\frac{5}{8}$.

The New York value of sterling improved $\frac{1}{4}$ cent to 4.30 $\frac{1}{8}$, although Montreal gave way a similar amount to 4.40. Uruguayan dollars hardened, but Argentine weakened $\frac{3}{8}d.$ to 42 $\frac{1}{8}d.$ and the Brazilian milreis at 90 days fell $\frac{1}{8}d.$ to 6 $\frac{3}{2}d.$

The following approximate rates were quoted for business one month forward :—

New York (b)	$\frac{1}{8}$ c-par.
Paris (a)	$\frac{3}{4}$ -1 $\frac{1}{4}$ frs.
Brussels (a)	5-15 c.
Amsterdam (a)	$\frac{1}{4}$ - $\frac{1}{2}$ c.
Italy (b)	5 c-par.

(a) Over "spot."

(b) Under "spot."

Appended is a list of Continental and other exchange rates on London :—

	Method of quoting.	Par of exch.	Quotations.	
			March 29.	March 31.
Paris, cheques	Fr. to £ ...	25.22½	78.40-78.50	77.75-77.85
Berlin	Mks. to £	20.43	19-19½ blns.	19-19½ blns.
Brussels, cheques ...	Mks. to £	25.22½	100-100½	98¾-99
Amsterdam, cheques	Fl. to £ ...	12.107	11.63½-64	11.63½-64
Italy, sight	Lire to £...	25.22½	98¾-99½	97¾-98
Greece	Drch. to £	25.22½	253-258	248-253
Madrid, sight.....	Pes. to £...	25.22½	32.23-32.28	31.68-31.72
Lisbon, sight	Escado ...	53½ <i>d.</i>	1¾-1¾ <i>d.</i>	1½-1½¾ <i>d.</i>
Switzerland, sight...	Fr. to £	25.22½	24.72-24.75	24.61-24.63
Christiania, sight ...	Kr. to £ ...	18.159	31.78-31.83	31.63-31.68
Stockholm, sight ...	Kr. to £ ...	18.169	16.26-16.28	16.20-16.23
Copenhagen, sight	Kr. to £ ...	18.159	26.83-26.88	26.43-26.47
Helsingfors	Mks. to £	25.22½	171½-172½	171¾-172¼
Bucharest	Lei to £ ...	25.22½	840-850	825-835
Prague	Kr. to £ ...	24.02	141½-142½	144½-144¾
Latvia	Lats. to £	5.22½	22.17-22.41	22.17-22.40
Esthonia	Mks. to £	—	16.15-16.40	16.20-16.40
Warsaw	Mks. to £	20.43	40,000 slrs.*	40,000 slrs.*
Vienna	Kr. to £ ...	24.02	304-307,000	304-307,000
Budapest	Kr. to £ ...	24.02	280,000 slr.†	280,000 slr.†
Belgrade	Din. to £...	25.22½	345-355	345-355
Sofia	Leva to £	25.22½	590-620	590-620
Constantinople	Pstrs. to £	110	820-835	820-835
Alexandria, sight ...	Pstrs. to £	97½	97¾-97½	97¾-97½
Bombay, T.T.	Rupce ...	2 <i>s.</i> 0 <i>d.</i>	16¾-16½ <i>d.</i>	16¾-16¾ <i>d.</i>
Calcutta, T.T.	Rupce ...	2 <i>s.</i> 0 <i>d.</i>	16¾-16½ <i>d.</i>	16¾-16¾ <i>d.</i>
Hong Kong, T.T.	Dollar.....	—	28½-28½ <i>d.</i>	28½-28½ <i>d.</i>
Shanghai, T.T.	Tael	—	38¾-39½ <i>d.</i>	38¾-39¾ <i>d.</i>
Singapore, T.T.....	Dollar.....	—	28½-28½ <i>d.</i>	28½-28½ <i>d.</i>
Kobe, T.T.	Yen	24.58 <i>d.</i>	23½-23½ <i>d.</i>	23½-23½ <i>d.</i>
New York, cable ...	Dol. to £...	4.86¾	4.29¾-4.30	4.30-4.3½
Montreal, cable.....	Dol. to £...	4.86¾	4.40-4.40½	4.39¾-4.40¼
Rio de J., 90 days...	Milreis ...	16 <i>d.</i>	6½ <i>d.</i>	6½ <i>d.</i>
" T.T....	Milreis ...	16 <i>d.</i>	6½-6½ <i>d.</i>	6½-6½ <i>d.</i>
Buenos A.'s, 90 days	Dollar.....	47.58 <i>d.</i>	43½ <i>d.</i>	43½ <i>d.</i>
" " T.T.	Dollar.....	47.58 <i>d.</i>	42½-42¾ <i>d.</i>	42½-42½ <i>d.</i>
Valparaiso, 90 days	Dol. to £...	13.33	42.40	42.50
Montevideo, T.T. ...	Dollar.....	51 <i>d.</i>	43½-43½ <i>d.</i>	43½-43½ <i>d.</i>
Lima	£ to £P. ...	par.	7¾% prem.	7¾% prem.
Manila	Dollar.....	24.06 <i>d.</i>	2 <i>s.</i> 3½ <i>d.</i>	2 <i>s.</i> 3½ <i>d.</i>
Mexico	Dollar.....	24.58 <i>d.</i>	29-30 <i>d.</i>	29-30 <i>d.</i>

* 000's omitted.

† Nominal.

X

THE ARITHMETIC OF THE EXCHANGES

Conversion of foreign money into sterling and *vice versa*.—Premium and discount.—Chain Rule.—Interest calculations.—“Tel quel” rates, what they are, and how to construct them.

THE greater part of the calculations that require to be made in connection with the traffic in foreign bills consist merely of reductions from foreign money into sterling, or *vice versa*, and are of so simple a nature as scarcely to call for remark. It may be well, however, to direct attention to the time-saving methods adopted in actual practice by experienced calculators.

1. Let it be required to find the sterling equivalent of Fcs.18914.75 @ 25.37½.

HOW NOT TO DO IT.

253725)189147500(715
1776075
1154000
1014900
1391000
1268625
122375
20
2447500(9
2283525
163975
12
1967700(7
1776075
191625
766500(3
761175
5325
£745 9 8

ABBREVIATED METHOD.

25.3725	1891475
10,1,4,9	7565900(745·182
	46160
	55610
	4895
	835
	23
= £745	9 8

2. Convert into sterling 1000 Dutch florins and 75 cents @ 12.36¼.

12-3625	1000-75	
1,9,4,5)	100300(80-952	
	1700	
	254	
	9	-- £80 19 0
	1	

3. Convert £4975 14s. 9d. into Dutch florins @ 11.92½.

HOW NOT TO DO IT.	ABBREVIATED METHOD
11 925	4975 7375
- 1975	52911
- 59625	49757375
83175	4975737
107325	1178164
47700	99515
59326 875	24878
5-962 = 10s.	<u>59335-669</u>
2-385 = 4s.	
.298 = 6d.	
.140 = 3d.	
<u>59335-669</u>	

As it would occupy too much space to exp detail the successive steps in the abbreviated processes, the student is referred for particulars to Brook-Smith's Arithmetic ¹ (Macmillan & Co.).

Problems in which the question of a premium or discount is involved also occasionally come forward for solution.

4. If the gold premium in Buenos Ayres is at .75, what discount does the paper dollar stand at ?

¹ § 87, Criteria of Divisibility.

§ 51 and 153, Contracted Division.

§ 152, Contracted Multiplication.

§ 274 and 275, Reduction of shillings and pence to the decimal of a pound, and the converse.

When gold is at par,	100 \$ paper	=	100 gold.
„	10 prem., 110 \$	„	= 100 „
„	275 prem., 375 \$	„	= 100 „

If \$375 paper = \$100 gold, \$1 paper = $\frac{100}{375}$ gold,
and the paper dollar therefore stands at $\frac{275}{375}$, or 73 $\frac{1}{3}$ % discount.

In exchange computations of a more advanced character a knowledge of Chain Rule is essential. This is the arithmetical operation which, by means of a chain of intermediate relationships, establishes a comparison between two quantities not directly related. If we wish, for instance, to ascertain the value in French money of 80 reichsmark we must first seek some intermediate link of connection between the French and German currencies. Finding this in the fact that 25.22 francs or 20.43 marks are each equal to £1, we draw up the following equation :—

$$\begin{aligned} &? \text{ francs} = 80 \text{ marks} \\ \text{if marks } 20.43 &= 1 \text{ pound} \\ \text{and pound } 1 &= 25.22 \text{ francs} \end{aligned}$$

and on dividing the product of the quantities on the right-hand side by the product of those on the left, thus :

$$\frac{80 \times 1 \times 25.22}{20.43 \times 1} = 98.76$$

obtain the result that (on the basis of the specie-pars with London) 98.76 francs are equal to 80 marks.

The utility of the method is better appreciated, however, in cases where the quantities to be compared are less nearly related than in the above instance, and where, consequently, the intermediate links are more numerous.

5. If $934\frac{1}{2}$ sovereigns are contained in twenty pounds troy of standard gold, $\frac{1}{2}$ fine, and if 155 twenty-franc pieces are coined from one kilogramme of gold, $\frac{9}{10}$ fine (the kilogramme being equal to 2.679227 pounds troy), find the value of 100 francs.

$$\begin{array}{rcl}
 & ? \text{ pounds} & = 100 \text{ francs.} \\
 3100 & = & 1 \text{ Kg. gold } \frac{9}{10} \text{ fine.} \\
 10 & = & 9 \text{ Kg. fine.} \\
 1 & = & 2.679227 \text{ lbs. fine.} \\
 11 & = & 12 \text{ standard.} \\
 20 & = & 934\frac{1}{2} \text{ pounds sterling.} \\
 \text{£s. reqd.} & = & \frac{100}{3100} \times 9 \times 2.679227 \times 12 \times 934.5 = \text{£}3.964 = \text{£}3 \text{ 19s. } 3\frac{1}{2}d. \\
 & & \frac{3100}{10} \times \frac{10}{11} \times 20
 \end{array}$$

As a guide to drawing up the equation, which is the only difficulty, it should be noted that :

- 1, the first link in the chain states the question ;
- 2, the chain must begin and end with factors of the same denomination ;
- 3, the first factor of every link must be of the same denomination as the second factor of the preceding link.

Care must also be taken when comparing prices or list-quotations, &c., to see that the time element (or what business men call the "value" of the item) agrees; that is to say, if a three-months quotation in one country is compared with the cheque-rate of another, or a price "for cash" with a price "per settling day," the difference of interest must either be added to the one or deducted from the other.

On reference to the Course of Exchange it will be observed that, with the single exception of Calcutta,

UNDER THREE MONTHS.

(Say from 19th January.)

Lit. 3000 19 March, Rome. @ 26.15 - £114 14 6 or, + 31 days @ 4 $\frac{0}{10}$ 7 10 <hr style="width: 50%; margin-left: 0;"/> £115 2 4	Lit. 3000 19 March, Rome. 10.20 + 31 days @ 4 $\frac{0}{10}$. Lit. 3010.20 @ 26.15 = £115 2 4.
---	---

Note.—Here we add, because we are buying a bill “better” than three months, and so are prepared to pay *more* for it.

maturities are sold together, the interest must be calculated in foreign money by the system of “numbers” or “products,” in this way :--

LONDON, 19th January.

M 9850. - 15 March. .. 11270. - 23 12140.40 5 April. .. 10209.15 10 .. <hr style="width: 50%; margin-left: 0;"/> 43469.55 87.35 + Int. @ 3 $\frac{1}{2}$ % <hr style="width: 50%; margin-left: 0;"/> 43556.90 @ 20.53	Berlin 35 3447 .. 27 3043 .. 14 1700 .. 9 919 <hr style="width: 50%; margin-left: 0;"/> 9109 (+ 3 $\frac{1}{2}$ - 87.35.) <hr style="width: 50%; margin-left: 0;"/> £
---	--

The sum is multiplied by the number of days (to or from 19 April — three months from 19 January), and the product, *after cutting off the two right-hand figures*, is noted down; *e.g.*, 15th March is 35 days short of 19th April; 9850 \times 35 = 344750, and cutting off the last two figures, we are left with 3447. The products are then added together, and the result on being multiplied by the rate per cent. (3 $\frac{1}{2}$), and divided by 365, gives the required amount to be added to allow for interest. Or, instead of multiplying by the rate per cent. and dividing by 365, we may multiply by double the rate and divide by 730, the advantage of this method being that division by 730 can be easily and quickly effected, by what is known by the “third, tenth and tenth” rule, thus :--

9109
7

63763
add one third, 21254
,, one tenth, 2125
,, one tenth, 212

add together and mark off three places of decimals 87.354

But in some cases the system is adopted of increasing or diminishing the *price* by the amount of the difference of interest; in other words, instead of adjusting the principal and allowing the price to stand, you adjust the price and allow the principal to stand. Treating the bill above-noted (Lit. 3000, per 19 March) in this manner we would say—

$$\begin{aligned}
 & 1 \text{ month at } 4\% \text{ p. a.} = \frac{1}{3}\% \quad \left(\text{or } 4\% \text{ on } 26.15 = 10\frac{1}{2} \text{ cents.} \right) \\
 & \quad \frac{1}{3}\% \text{ on } 26.15 = .08\frac{1}{3} \quad \left(\frac{1}{3} \text{ of } 10\frac{1}{2} = 8\frac{1}{3} \text{ ,,} \right) \\
 & \quad 26.15 - .08\frac{1}{3} = 26.06\frac{1}{3} \\
 & \text{Lit. 3000 per 19 March, Rome.} \\
 & \quad @ 26.06\frac{1}{3} \text{ t. q.} = \text{£}115 \quad 2 \quad 2.
 \end{aligned}$$

A rate constructed to correspond to the term of the bill is technically designated “*tale quale*” or “*tel quel*,” meaning that it applies to the bill “such as it is,” or that the price is *net*. “*Tel quel*” rates are mostly met

$63763 \div 730 = 87.348$, correctly; the error is thus $.006$, or sufficiently small to be neglected.

It may be of interest to show how this rule was established. It rests on the fact that

$$730 \times 137 = 100010.$$

Now if we subject any given number “*a*” to the third, tenth and tenth rule, what we are doing is to calculate the expression:—

$$\begin{aligned}
 & a + \frac{a}{3} + \frac{1}{10} \cdot \frac{a}{3} + \frac{1}{10} \cdot \frac{1}{10} \cdot \frac{a}{3} \\
 & = a + \frac{a}{3} + \frac{a}{30} + \frac{a}{300} \\
 & = \frac{411}{300} a \\
 & = 1.37 a \\
 & = \frac{1000.1}{730} \cdot a = \frac{a}{730} \times 1000 \text{ (approximately)}
 \end{aligned}$$

To eliminate the 1,000, we mark off three places of decimals. The error involved by the use of this method is $.01\%$.

with in the case of bills drawn in sterling ¹ and made payable at the endorsed rate of exchange.

When a number of "tel quel" prices have to be computed it is generally advisable (in the case of bills on France, Italy, &c.) to ascertain how many days' interest at the given rate amounts to $1\frac{1}{4}$ c.,² and to use this number as a divisor. For instance, let us suppose that "tel quel" prices are required for bills per 8 March, 19 March, and 11 April, all on the basis of 26·15 for three-months paper (per 19 April) with 4% interest; it is best to proceed as follows :—

365 d.	interest on 26·15 at 4%	is 104c.
36 d.	" "	10c.
$4\frac{1}{2}$ d.	" "	$1\frac{1}{4}$ c.

8 March is 42 days short; 42 divided by $4\frac{1}{2}$ gives 9 (nearest); 9 times $1\frac{1}{4}$ c. is $11\frac{1}{4}$ c., and the appropriate exchange is therefore 26·15 less $11\frac{1}{4}$ = 26·03 $\frac{1}{4}$.

19 March is 31 days short; $\frac{31}{4\frac{1}{2}} = 7$; $1\frac{1}{4} \times 7 = 8\frac{3}{4}$; 26·15 — $8\frac{3}{4}$ = 26·06 $\frac{1}{4}$.

11 April is 8 " $\frac{8}{4\frac{1}{2}} = 2$; $1\frac{1}{4} \times 2 = 2\frac{1}{2}$; 26·15 — $2\frac{1}{2}$ = 26·12 $\frac{1}{2}$.

6. State the t. q. rate for a bill on Amsterdam at $2\frac{1}{2}$ months, the 3 months exchange being 11·76 and interest 4% per annum.

4% per annum is equivalent to $\frac{1}{6}$ % per half-month

$$\frac{1}{6} \times 11\cdot76 = \cdot0196 = \cdot02.$$

$$11\cdot76 - \cdot02 = 11\cdot74, \text{ t. q.}$$

¹ See next chapter.

² Strictly speaking, $\frac{1}{4}$ % of 26·15 is $8\frac{3}{4}$, but the rates of exchange on France, Belgium, Switzerland and Italy used to move by steps of $1\frac{1}{4}$ c., or $\frac{1}{2}$ per mille (from 26·10 to $11\frac{1}{4}$, from $11\frac{1}{4}$ to $12\frac{1}{2}$, from $12\frac{1}{2}$ to $13\frac{3}{4}$, and so on).

7. Find the t. q. rate (to the nearest $\frac{1}{32}$ of a penny) for a bill on Buenos Ayres at 4 months, taking the 3 months exchange at $43\frac{1}{8}d.$, and interest at $5\frac{1}{2}\%$ per annum.

Here it is best to begin by reducing the exchange to thirty-seconds of a penny.

$$43\frac{1}{8}d. = 1380 \text{ thirty-seconds of a penny.}$$

$$5\frac{1}{2}\% \text{ on } 1380 = 76 \text{ (interest for 1 year).}$$

$$76 \div 12 = 6 \text{ (interest for 1 month).}$$

$$43\frac{1}{8} - \frac{6}{32} = 42\frac{15}{32}d., \text{ t. q.}$$

N.B.—A bill at $2\frac{1}{2}$ months on Amsterdam is better than a bill at 3 months; and (as the price is in foreign money) “the better the bill, the lower the rate.” Therefore the interest difference must come off the rate.

On the other hand, a bill on Buenos Ayres at 4 months is not so good as one at 3 months, and must be charged at a lower price; but, in this case, the price is in sterling, and the interest difference must therefore again come off the rate.

XI

FOREIGN BILLS IN THE HOME CURRENCY

A peculiar custom.—Advantage of drawing in sterling.—Why the exchange is fixed in London.—If a sterling bill has less than three months to run, how should it be endorsed?

THERE has long prevailed a remarkable usage among English traders of drawing on their foreign customers in pounds sterling (instead of in the currency in which the bill will be paid), and of making their drafts payable at a rate of exchange to be endorsed in London :- -

“ Manchester, 18th January, 1892. £350 14s. 2*d.*

Three months after date pay this First of Exchange (second unpaid) to the order of Messrs. F. F. & Co., the sum of three hundred and fifty pounds, fourteen shillings and twopence, *at the rate of exchange as per first London endorsement*, value of the same, and charge to account as advised.

To Messrs. C. D. & Co.,

A. B. & Co.”

Venice.

The practice is quite peculiar to this country, as one never sees a bill drawn on London in dollars or marks, &c., and expressed as payable at a rate to be fixed by endorsement in New York or Berlin, &c.

Such drafts are not, as a rule, of very large amount, and probably arise out of transactions which it has been agreed to settle "to a point." The advantage they present to a drawer over a bill in foreign money is that he is thus enabled to encash the exact amount of his invoice, and has neither the trouble of quoting prices in other currencies, nor the risk of a loss in the exchange.¹ If he drew up his price-lists in foreign money his quotations would have either to include a margin (in some cases a large one) for fluctuations in rates, or to undergo continual revision; but by quoting and drawing in pounds and shillings he shifts the speculative part of the bargain on to the shoulders of the buyer, and, if the latter can see his way to make a profit on the exchange, is quite willing to let him make it.

The object of making the bill payable at the endorsed rate is to ensure that the exchange shall be fixed impartially. If it were remitted abroad as a sterling bill, the onus of determining the rate would be cast upon the banker who presented it; and it is more than likely

¹ The custom originated in the desire on the part of the drawer to protect himself from the effect of fluctuations which he could neither foresee nor measure. We thus find the *Economist* giving British traders the following advice in 1854:—"From the moment that Russia adopts this step (issue of inconvertible notes just previous to Crimean War), foreign merchants having transactions with Russian subjects should invariably conduct their business in the denomination of the currency of their own country in place of that of Russia, and stipulate to be paid in bills upon London, Paris or Hamburg, computed accordingly. No matter then how low the exchange may fall in Russia, the debtor must provide whatever number of roubles is required to purchase a bill for the necessary amount expressed in the stipulated currency."

that in so doing he would find himself at loggerheads with the acceptor. The London banker who signs the endorsement is therefore, as it were, constituted umpire, and is expected to "see fair" between the conflicting interests: though there is reason to doubt whether he himself acknowledges any obligation on that score.

When the bill is sold, the rate at which it must be paid is specified in the endorsement:

" Pay G. H. and Co., or Order,
at the exchange of 26 lire and
15 centesimi for £1 sterling,"

and the conversion into foreign currency is effected by the buyer, who writes the rate and the new amount on the face of the bill, just above the figures of the sterling amount (thus, if the draft is for £100, he inserts on the upper margin,

" (*à*) 26·15 = Lit. 2615⁰⁰ "),

and treats it thereafter exactly as though it had originally been drawn in foreign money. In order that the drawee may verify the exchange, as well as know what sum he will be called upon to pay, it is necessary that he should be advised of the rate at which the bill has been negotiated, and this duty devolves upon the drawer.

If a bill of this description should be sent up for negotiation which has less than three months to run, there should always be a distinct understanding as to whether the difference of interest belongs to the drawer or to the drawee, for, unless instructions are given to

the contrary, the bill in such a case will be endorsed at the "tel quel" rate, and the acceptor thus gain a difference to which he may not be entitled. For instance, supposing a merchant at Manchester has sold goods to the amount of £600 against a three-months bill, but that, owing to some oversight, a fortnight is allowed to elapse before he gives the bill to his banker: if no remark be made, it will be endorsed and sold in London at the "tel quel" exchange, which, on the basis of Lit. 26.15 and 4% for three-months paper, will be Lit. 26.11 $\frac{1}{4}$, so that the acceptor will gain a fortnight's interest and the drawer lose it—that is to say, the acceptor will pay only Lit. 15667.50, instead of Lit. 15690, and the drawer will receive only £600 instead of £600 plus interest. The proper thing for the drawer to have done under the circumstances was to give instructions that the bill should be endorsed at the full three-months rate,¹ and that he should be credited with the difference. The broker would then have endorsed it at 26.15, and have charged it to the buyer as follows:—

$$\begin{array}{r}
 \text{£600 at } 2\frac{1}{2} \text{ months } (\text{@ } 26.15 = \text{Lit. } 15690) \\
 \text{1 Interest } \frac{1}{2} \text{ month at } 4\% \\
 \hline
 \text{£601} \\
 \hline
 \end{array}$$

so that the drawer would get the £1 that belonged to him.

¹ As it was his fault that the bill was not negotiated a fortnight ago he would have to bear the loss, if the rate had gone up, of the difference between the exchange as now and the exchange as it was then.

Though of technical importance, the point is not of general interest, and will be best appreciated by those who are in the habit of drawing such bills.

Although British manufacturers and exporters still quote, whenever possible, in sterling, in present conditions of trade they are prepared to quote in foreign currency rather than lose an order. This means, of course, that they and not their foreign customers run the risk of exchange fluctuations, but protection can now be gained by a sale of forward exchange (see Chapter XIII).

XII

THE LONG EXCHANGE

What is the long exchange?—Interest.—Bill-stamp.—The question of credit.—Why interest is taken at the foreign rate.—The allowance for interest varies with the class of paper, because the discount-charge on the other side also varies.—Long and short rates from the foreign standpoint.—Arbitrage business and its influence on rates.—A practical illustration.—The sight-exchange between two countries cannot be rising on one side while falling on the other.

OUR next step will be to examine, as far as we are able, into the causes that produce fluctuations of the exchanges; but as these causes differ in their incidence, some affecting the exchange as a whole, whether expressed as the rate for cheques, for short bills, or for long bills, while others act upon the time rates only, it will be conducive to clearness if we first deal with the long rate of exchange, asking what it is, what its component parts are, and under what circumstances it is liable to vary independently of the sight-rate.

The long exchange is the price of a bill payable a certain length of time—in most cases three months—after the day of purchase. If therefore a merchant should give £100 on the 21st January for a bill, he will have to lie out of his money until the 21st April, and, if money is worth 4% per annum, he will be entitled on that date to receive the equivalent of £101. Interest,

consequently, is the first and principal constituent of the long, as distinguished from the sight, exchange.

In the next place, the foreign bill-stamp must be considered. On a cheque it is too small to be worth mentioning; but on the bill he will have to pay at least one-half per mille, and this he of course takes into account.

Lastly, there is the question of credit. A bill, after all, is only a joint promise to pay; and the promise may not be kept. Its value rests on the joint security of drawer and acceptor; but, though he knows the drawer well enough, the name of the acceptor may be strange to him. He may feel sure that the drawer is quite good for the amount at present, and that if it were only a question of buying a sight-draft the risk would be *nil*; but between this and April the failure of a bank, or a crisis somewhere abroad, or any one out of half-a-dozen other contingencies, may bring him to the ground, and then all that the buyer would have to represent his money, would be the promise-to-pay of an unknown house in a foreign country. Practically, the risk may amount to very little, but nevertheless, there it is, and why should he incur it for nothing? Whatever he may assess it at in his own mind, that much the less is he willing to give for a bill as compared with a cheque.

The long-rate, then, may be defined as :

- = sight-rate,
- + three months' interest at the foreign rate,
- + foreign bill-stamp,
- + some allowance for contingencies.

Let it be the long-rate on Paris that he wishes to arrive at, the cheque-rate being 78.40, and interest 6%, then

$$\begin{aligned} x &= 78.40 + 1.18 + \cdot 04 + ? \\ &= 79.62 + ? : \text{ and if he takes the consideration for} \\ &\quad \text{risk at 2c.,} \\ &= 79.64 \end{aligned}$$

Having bought a bill for Fcs. 7964, for which he pays £100 down, he sends it to his business connection in Paris for the credit of his account, and as one of the conditions of the account is that the balance of interest to debit shall be charged at $\frac{1}{2}\%$ over bank-rate, it is to his advantage to have the bill credited at once under discount, and he accordingly gives instructions to that effect. By return he receives the following credit-note—

Fcs.7964.—	per 21 April, Paris.
	119.46, 3 mos. discount @ 6%
<u>123.38</u>	<u>3.92</u> stamp
Fcs.7840.62,	

which comes out a trifle better than if he had bought a cheque, but, on the other hand, leaves him under liability on his endorsement for three months to come.

The statement explains why he took the interest at 6% in his calculation. It was because 6% is the bank-rate in Paris, and is what he has to pay when he discounts the bill. If he refrains from discounting he will have to pay his correspondent $6\frac{1}{2}\%$, but that, of course, has nothing to do with the seller of the bill, who would decidedly object to allow more than the Paris bank-rate.

The point to be noticed, however, is that only the rate on the other side must be regarded, and not the rate on this, which is beside the question.

The foregoing is supposed to be ordinary commercial paper, which discounts at bank-rate; but if the transaction had been on a larger scale, and if the merchant, instead of buying trade-bills, had laid out £1000 in first-class bank-paper, he would expect to be credited for it at the best market-rate, say $5\frac{1}{2}\%$, thus—

Fcs.79640.—	per 21 April, Paris.
	1095.05, 3 mos. discount @ $5\frac{1}{2}\%$
1134.05	39.— stamp
Fcs.78505.95	.

This gives a net exchange of $78.50\frac{1}{2}$, and it is not to be supposed for a moment that the seller will make him a present of the difference. Being well aware that a bank-bill will discount at $5\frac{1}{2}\%$, the seller holds out for a correspondingly better price, and the competition of other buyers forces the merchant to give, say, 79.56, which brings the net cost to about 78.41.

The allowance for interest in the long exchange is based, therefore, on the foreign bank-rate in the case of commercial paper, and on market-rate, or thereabouts, in the case of bank-paper. If bank-rate changes, or is expected to change, the long-rate changes; so that, even if the sight-exchange remained permanently fixed, the three-months rate would rise or fall with every alteration of interest.

As to the other variable element, the allowance for

contingencies, the only rule that can be laid down is that it varies inversely with the quality of the bill, being low on good and high on inferior-class paper. The list-quotation only applies, of course, to sound bills, so that this constituent is hardly noticeable. In individual cases it crops up occasionally—a merchant who is known to have met with losses experiencing difficulty in selling his long paper except at a reduced price—but in the long exchange on a country as a whole its influence is rarely perceptible. Now and again, however, instances are met with, particularly so since the war; for whenever credit is disturbed at a business centre, merchants in other countries give the preference to short, rather than long, paper in order to minimize the risk, and the price of the latter gives way.

Having seen how the long exchange is put together from the London point of view, let us now imagine ourselves on the Continent, regarding it, we will suppose, from the standpoint of a merchant in Italy who has to remit to London. The longer the bill, the less he will give for it. For a pound due at once he pays perhaps 99, but for a pound due in three months he will only give 99 less three months' interest. Instead, therefore, of *adding* interest and stamps to the sight-rate, he *deducts* them; so that the long-rate, whenever the exchange is expressed in the currency of the country that draws the bill, is lower than the sight-rate. This double aspect of the long-rate—higher than the sight-exchange if viewed from the one side, and lower than the sight-exchange if viewed from the other—may be

illustrated by a practical though pre-war example, which will also serve to show how the quotations in the Course of Exchange are arrived at. A foreign banker in London, let us suppose, has opened an arbitrage account with a correspondent in Italy, and does business with him on the profit-sharing principle. On the Tuesday or the Thursday morning he receives a telegram stating the price at which the latter can buy ordinary three-months trade bills on London, and the rate at which he can discount similar paper on Italian bank-places. The message runs, "2560 5," on which basis the banker proceeds to calculate as follows:—

$$\begin{array}{r}
 25.60 = 3 \text{ months London in Italy,} \\
 \text{add } 19\frac{1}{4} \quad 3 \text{ months' discount in London at } 3\% \\
 \text{,, } 2 \quad \text{London bill-stamp } \frac{1}{2}\%, \text{ and loss of} \\
 \quad \quad \quad 3 \text{ days' grace.}
 \end{array}$$

$$\begin{array}{r}
 25.81\frac{1}{4} = \textit{Sight-rate.} \\
 \text{, } 32\frac{1}{4} \quad 3 \text{ months' discount in Italy at } 5\% \\
 \text{,, } 1\frac{3}{4} \quad \text{Italian bill-stamp } \frac{3}{8}\% \\
 \text{,, } 1\frac{1}{2} \quad \text{Postages and telegrams.}
 \end{array}$$

$$26.16\frac{3}{4} = 3 \text{ months Italy in London,}$$

and finds that long bills on Italy should cost about 26.16 $\frac{3}{4}$, brokerage extra. Then he goes on 'Change to see what he can do. If the price stands anywhere between 26.14 and 26.19 he may think it hardly worth while operating, and do nothing. But bills, being plentiful, may be offered at 26.20, in which case he is tempted to buy; or, being scarce, he may be able to

dispose of a cheque at $25.77\frac{1}{2}$, in which case he draws on his correspondent and sells. Take the former case, and say he buys a thousand pounds' worth. After 'Change is over he wires his correspondent, "Bought 1000," and the same evening sends him a bill for Lit. 26200 at three months. The latter, on his part, at once buys and dispatches a parcel of bills amounting, we will say, to £1008 2s. 2d., on London, which at 25.60 cost him Lit. 25807.55. Two or three days afterwards the following statements are exchanged :—

A. B. & Co., London. *Crs.*

L. 26200.— 3 months, Italy.
 327.50 3 months' discount @ 5%
 343.70 16.20 stamp.

L. 25856.30 (against a debit of L. 25807.55).

C. D. & Co., Italy. *Crs.*

£1008 2 2 3 months, London.
 7 11 2 3 months' discount @ 3%
 8 2 2 11 0 stamp.

£1000 0 0 (against a debit of £1000).

It is seen that on this side the transaction balances, but that on the other the joint account shows a profit of about 50 lire, or nearly 1 per mille each.

This is an instance of arbitrage business, which plays a very important part in the economy of the exchanges, for it not only acts as a leveller of the differences that

may arise on either side, but, like the fly-wheel of an engine, converts what would otherwise be a series of jerky movements into a steady and gradual rise or fall.

Before passing on, look again at the two long-rates, and notice that long London, plus our stamp and interest, gives sight-rate, and that sight-rate, plus the Italian stamp and interest, gives long Italy. The sight-exchange must always be the same, or practically the same, on both sides; and cheques on Italy cannot be in demand and rising in value in London at the same time that cheques on London are demanded and rising in Italy. In other words, the sight-exchange between two countries cannot be rising on one side and falling on the other.

Paper on London rises in Italy, or in Paris, or in Berlin, &c., when paper in these places falls in value in London, *vice versâ*.

XIII

FORWARD EXCHANGE

Traders' risks of losses on exchange.—The parallel of the produce markets.—How forward exchange dealings act as an insurance.—How the banker protects himself.—The relation between spot and forward rates.—The effect of interest rates.—Other considerations.—When forward exchange dealings are not speculative.

THIS form of exchange dealing has grown up since the war, and was originally devised as a safeguard to traders against losses that they would otherwise have incurred on account of the wide post-war exchange movements. The nature of this risk can best be illustrated by two examples.

1. A British manufacturer decides to equip his works with some special American machinery. He is quoted a price of \$10,000, the machinery to be delivered in three months time, and payment to be made on delivery. The current rate of exchange is, say, \$4 to the pound, and the cost to him in sterling is thus £2,500. Now when he accepted the American tender, he had decided in his own mind that, say, £2,600 was the utmost he could afford, and so when he received this quotation of \$10,000, he found that, *at the day's rate of \$4*, he had one hundred pounds to spare. Payment, however, is not to be made for three months, and the trouble in

his mind is, "What will be the exchange rate on the day that I have to make payment? If by then sterling has fallen to \$3.50, I will have to find, not £2,500, but £2,856. It is true that sterling may equally well rise to \$4.50, in which case I will only have to find £2,222, but the possibility of a gain does not compensate me for the risk of a loss. To put the matter shortly, I am a manufacturer, and not a gambler on the exchange market, and it is not fair to ask me to guess what the New York rate will be three months ahead, before I decide whether to accept the tender."

One solution would be for him to open an account for \$10,000 there and then in a New York bank, or to buy a three months' draft of \$10,000. This would save him from a risk of a loss on exchange, but it would virtually mean that he would lose the advantage of the right to pay on delivery of the machinery, and instead would have to pay down cash on placing the order. A deposit of \$10,000 in a New York bank would be of no use to him; he would simply have withdrawn £2,500 from his working capital for three months. In the conditions of his business, this course is impossible.

2. A British electrical engineering firm wish to tender for a contract to build a power station in the Rhone valley. The terms of the contract are that payment is to be made in francs on the completion of the work, which it is estimated will occupy six months. The British firm estimate that the cost to them, including a reasonable profit, will be £50,000, but then comes the question, "How many francs is this?" They know

the day's rate, but what will the rate be in six months' time? If they press for payment to be in sterling, or if they allow a wide margin as an insurance against an intervening depreciation in the franc, it will simply mean that they will lose the contract.

In order to get over these difficulties, bankers and exchange dealers have adapted the system of buying and selling "futures" used in many of the chief produce markets. If a cotton spinner is carrying a stock of yarn, and wishes to guard himself against a fall in price, he sells raw cotton for delivery some months ahead, and when the time comes when he has to find the cotton, he buys it "spot" at the current price. If, meanwhile, the price has fallen, he gains on his deal, and so compensates himself for the loss in the value of his yarn. Similarly, circumstances arise where a merchant can protect himself against a rise in the market by buying cotton futures.

It will be seen that the risks against which futures dealings act as an insurance are parallel to those described in the examples quoted at the beginning of this chapter. The procedure of forward exchange dealing is also similar. Take the case of the first example. The manufacturer goes to his banker and says, "What is your quotation for dollars, three months forward?" The banker replies, " $\frac{3}{8}$ cts. under spot," meaning by this that if the spot (or ordinary) rate is \$4.00 to the pound, the three months' forward rate is \$3.99 $\frac{3}{8}$. The manufacturer then says, "I want \$10,000, three months forward." If the banker agrees, when three months

have elapsed, the banker hands the manufacturer a draft for \$10,000, and in exchange receives a cheque for £2503 11s. 11d., *i.e.* $10,000 \div 3.99\frac{1}{2}$. By this means the manufacturer knows where he stands, the moment he has closed the deal. However the rate moves, up or down, he will have to pay £2,503 11s. 11d., and no more or no less.

In the second example, the contractor says to his banker, "At what rate will you buy from me francs for delivery three months forward?" The banker replies, "At four francs over spot." The contractor then knows that if three months ahead he can deliver x francs to his banker, his banker will credit him with £50,000. More important still, he can calculate x immediately; for he knows that francs are now quoted "spot" at, say, 75 to the pound, so all he has to do is to add four to 75, and then work out the equivalent in francs at that rate of 79 to £50,000. This he finds in a minute to be Fcs.3,950,000. So he tenders for the contract at a price of Fcs.3,950,000, and if his tender is accepted, he closes the deal with his banker. He knows that whatever happens to the franc, his Fcs.3,950,000 will be exchanged for £50,000.

So far we have only considered the manufacturer, and we have seen that in the first case by *buying* and in the second by *selling* exchange forward, he can protect himself from loss. But has he not done so by simply transferring the risk to the shoulders of his banker? and how does the banker in his turn obtain protection? In point of fact, the banker is running two separate

risks. The first is that while he is confident that he can carry out his side of the bargain, and at the end of the appointed time have his draft ready for the stipulated amount in the required currency, what guarantee has he that his customer will in his turn be ready? Supposing that, in the second example, the French company does not pay up, and that meanwhile the franc has appreciated by 20 or 30%? How is the unfortunate British contractor to provide himself with the francs he has sold forward and has agreed to deliver?

This question is rather outside the realms of foreign exchange proper, and falls within the scope of ordinary banking practice. It may be pointed out, however, that the contractor would not sell francs forward unless he were reasonably certain of obtaining payment at the right time; while the banker can, and often does, request the customer to find security, in case he is unable to fulfil his contract. This does not impair the usefulness of dealing in forward exchange, nor does it mean that the customer has to operate on a cash basis after all. He is in no worse position than if he had to obtain an advance from his banker in order to execute a contract at home, just as he had to in more normal days when exchange fluctuations were an unthought-of risk.

The other risk is more obvious. It is that the banker may lose by exchange fluctuations during the three months over which the contract runs, just as under the old system of spot dealing the manufacturer stood to lose. A banker, however, is used to carrying balances

in various countries, nor must it be imagined that the examples quoted above are isolated transactions. To put the matter briefly, no banker would wait for the full three months to elapse before he bought his dollars or sold his francs. A big London joint-stock bank, the moment the customer had left the office after concluding the deal, would do one of two things. If the amount in question were small, it would, taking the first example, buy \$10,000 spot, and hold them in New York for the full three months. If a large sum were involved, the bank would buy dollars (or sell sterling, for the two terms are synonymous) forward. Whichever it did, the bank in its turn would have guarded itself against loss. In the vast majority of cases, a banker would be buying dollars forward from one customer, and a few minutes later would sell dollars forward to another. If so, the two transactions would cancel each other, and the banker would simply act as an intermediary, which, indeed, is his proper function. He would probably find, however, at the end of the day that he had a small margin, one way or the other, left uncovered. This he would proceed to cover by a forward sale to or purchase from some foreign bank or international house who made a business of dealing in forward exchange and in lending money in various centres, according to whichever might be the most profitable.

This brings us to the final point, what determines the relation between spot and forward rates? Why should forward dollars be one month $\frac{1}{2}$ cent over, and the next $\frac{1}{2}$ cent under spot? To a large extent, this is

a question of supply and demand. If more people wish to sell dollars forward than to buy forward, forward dollars will become cheaper than spot dollars, and the forward rate will rise above spot. But other considerations enter. When the dealings for the day are balanced up, it will be found that there is a certain margin over, and in order to cover this, some one will have to come forward who is ready to transfer money from one country to another. Say, for example, that on a given day more forward francs (three months) are bought than are sold. Then, in order to fill the gap, some one will have to step in and sell forward the required balance. In order to cover himself, that person will have to buy an equal number of francs spot, and hold them until the time comes to deliver, when they are *ipso facto* changed back into sterling. In other words, in filling the gap, he commits himself to holding the sum involved for three months in francs instead of in sterling; and the difference between the spot and three months' forward rate has to be such as to induce him to do so.

When deciding whether to deal, he looks at several points. Firstly, if interest rates are higher in France than in England, he will be the more prepared to deal, and competition will force him to make some concession in the forward rate; for his money can be employed more profitably in France than in England. Secondly, if he has confidence in French finance and in the franc, he will be more willing to deal, but if he thinks there is going to be a collapse in France, or a heavy depreciation in the franc, he will go more carefully; for he always

has to reckon with the possibility of the contract falling through, in which case he will still have his francs on his hands at the end of the three months. Finally, he considers whether there is a wide forward market in the particular currency he is asked to buy or sell; for the wider the market, the better chance he has of hedging his contract by concluding a reverse deal, whenever he thinks such a course advisable. It may be noted that forward transactions are largely confined to the more important currencies, such as dollars, francs and lire; and it is for these alone that forward rates are regularly quoted (*v. p.* 52).

If the forward rate is below spot, it means that forward exchange is at a premium. Buyers of the foreign currency forward are in excess of sellers, due to (*a*) the trend of trade transactions; or (*b*) to the foreign interest rate being below that current in Great Britain; or (*c*) to a confidence in the foreign country, and a belief that the spot rate will move in favour of that country.

The second point can be illustrated by an example. Let the spot rate be \$4, and interest in London 4%, and in New York 3%. If a banker holds £1,000 in London for the following three months, it will amount to £1,010, while if he holds \$4,000 in New York for three months, it will amount to £4,030. At what rate should he sell dollars three months forward?

The answer is a simple one. To protect himself, when he sells \$4,000 forward, he must buy \$4,000 spot. When he comes to deliver, he will have at his disposal

\$4,030. If, however, he had retained his balance in London, he would at the end of three months have had £1,010. So he works out the sum

$$\text{If } \$4,030 = \text{£}1,010,$$

$$\text{\$?} = \text{£}1 \quad ,$$

and obtains the answer:—\$3·9901, or \$3·99. So he quotes for three months forward 1 cent under spot.

Turning to the third point, there may be a general view that dollars are likely to cheapen during the next three months, *i.e.* that they may go to \$4·05 to the pound. If so, traders having to find dollars in three months' time may prefer to gamble on the exchange, rather than to buy dollars forward, while those about to receive dollars in three months' time will be eager to protect themselves. Speculators will also enter, for they will see a chance of making a profit by means of a "straddle" between spot and forward dealings. For example, if a man sells dollars forward at \$4·01 to the pound, and when the time comes to deliver he can buy them spot at \$4·05 to the pound, he will make a profit of four cents on every pound, without, in theory, having to find any cash at all. The result is that sellers of forward dollars are in excess of buyers, and the forward rate moves to a discount, *i.e. above* spot.

Forward dealing is occasionally condemned as being a form of speculation. The answer to that complaint is that it all depends upon the circumstances. If it is carried out in connection with a genuine trade transaction, so far from being a gamble, enough has been

said to show that it is a very potent means of insurance. If, on the other hand, it has no real basis, but is carried out in the hope that the currency to be delivered can be obtained more cheaply at a future date, then there is no defence to the charge. It is probable, however, that an infinitely greater sum has been lost through speculation in the form of the purchase and sale of spot exchange than in gambling on the forward market.

XIV

FLUCTUATIONS OF THE EXCHANGES

Why people pay more, or take less, for a bill than its face value.—The rate is affected only by those transactions which have to be settled.—The supply of bills on London *versus* the demand.—The influence on the exchange of ordinary trade.—Of Stock Exchange business.—Of foreign loans, and the interest on them.—Of mercantile credits.—Of travellers' credits.—Of blank credits.—Of arbitrage and speculative transactions.—Political influences.—Our net balance of trade.

WE now approach the main question, namely, the determination of those influences which produce fluctuations in the sight-exchange, and, consequently, in the exchange as a whole, for, as long-rate is based upon sight-rate, whatever affects the latter must necessarily affect the former also.

People say that the worth of a thing is what it will bring: so, if a cheque for Fcs.10,000 will bring more this week than it would last, it ought to be worth more; but how can it be worth more if the coins that it represents have a fixed value in pounds sterling?

The question is not new to us. We already know that, within certain limits, the cheapest way of sending money from one country to another is to buy and remit a bill of exchange; that, if the export and import of gold is legal, the exchange can only fluctuate within, and not beyond, those limits, which are called gold-points; and finally, that the movements of the exchange

between gold-points are determined by the equation of supply and demand—that is to say, the exchange either is, or tends to become, such as to produce an equality between supply and demand. If supply falls off, or demand increases, bills grow dearer; if supply increases, or demand falls off, they become cheaper:¹ the rise or fall of price continuing until the demand and the supply are again equal to one another.

In normal times, the fact of bills on London being dear abroad, and the exchange in our favour, is a proof that there is a balance due to us on the transactions *that have to be settled up*. All the world, it might be said, owes us money; but it is only those debts which fall due, and have to be paid off, that affect the exchange.

On the other hand, if bills on London are cheap, and the exchange against us, it proves that, for the time being, we have more to pay than we have to receive.

Why at any particular time we should have more to pay than to receive, or more to receive than to pay, is a problem which it is always difficult, if not impossible, to solve. A rate of exchange is the condensed effect of a variety of facts and forces which are too numerous and too complex to admit of exact appraisalment; and, in the majority of cases, the best explanation we can give of an exchange-movement is to pick out one prominent cause, which we know to be at work, and to hazard a guess at the others. As the question turns,

¹ “Those who are creditors on Paris fear the balance due to London; those who are debtors to Paris dread a balance due to Paris. The interest of the first is to disassemble what they fear, that of the last to exaggerate what they wish.” *Ency. Brit.* (1810).

however, on the interaction of supply and demand—on the ratio that the production of bills bears to the consumption—something may at least be learnt by attempting to split these up into their component parts, with a view to ascertain, on the one hand, what are the chief circumstances connected with commerce or finance that give rise to the creation and sale of bills of exchange, and, on the other, whence arises the necessity of purchasing such bills for purposes of remittance.

In order to do this effectually, it will again be necessary to look at the matter through foreign spectacles, as it would be mere waste of time to begin analysing the handful of bills drawn from London on abroad. It is the supply of bills *on London*, as compared with the demand for bills *on London*, that sways the exchange, and it is these we must examine.

The chief heads, then, under which bills on London may be arranged are: Exports, Securities, Loans, Credits, Arbitrage and Speculation; and the purposes for which they are bought may be described as: Imports, Freights, Securities, Interest, Credits, Arbitrage, Investment and Speculation (see table facing title-page).

These heads may again be classed as:—

Trade influences on the exchange, viz. Imports,
Exports, and Freight;
Stock Exchange influences, viz. Securities, Loans, and
interest;
Banking influences, viz. Credits, Arbitrage, and
Investment.

(In post-war days.)

Political and speculative influences, the desire to invest in a safer currency, the belief of a big rise or fall in a certain currency, &c., &c.

All consideration of the indefinite relation between exchange movements and the internal purchasing power of a particular currency are, for the sake of convenience, here omitted.

(1) *Facile princeps* stands trade. The necessity of transmitting money from one country to another may originate in innumerable ways, but the most potent and most constant cause is ordinary trade. Exporters in other lands are for ever drawing on London against their sales to us of food and raw material; and importers are for ever purchasing and remitting such bills to pay for the manufactured goods that they buy from us.

The influence on the exchanges of the balances of trade is, however, an unknown quantity; for, though the values of both imports and exports are declared at the Custom House, the length of credit given by the seller,¹ the varying conditions on which goods are shipped, the inexactness of the declarations, and other

¹ England gives credit to all the world, but takes little or none. For the goods which he is exporting this spring, the British shipper may only receive payment in the autumn, or next spring. The foreign exporter, on the other hand, draws against his bill of lading, and almost from the day the goods enter our warehouses, or very shortly after, our merchants are in cash advance upon them, and continue to be so until they are finally sold and paid for. Consequently, the relative amount of our imports and exports at any particular moment is far from representing the exact relative amount of the payments to be made and received.

causes, render it, practically speaking, impossible (except when long periods are considered) to draw any reliable inference from the Board of Trade Returns.

(2) Immediately connected with trade is freight—an item that may be reckoned as almost entirely in our favour. It represents the earnings of our enormous fleet of steam and sailing vessels, which perform the greater part of the world's carrying trade. In the case of imports, freight forms part of the cost and is ultimately borne by the home consumer; but on exports it is paid by the foreign consumer. Whether, in the latter instance, the shipowner receives his money here or abroad makes no difference, for if paid on this side the exporter adds it to the value of his shipment and the buyer has to remit so much the more.

Under this head may also be included the commissions, brokerages and insurances, &c., amounting in the aggregate to a very important sum, charged to their foreign clients by the great army of accepting-bankers, foreign loan agents, stock- and produce-brokers, shipping-merchants, agents, insurance companies, &c.

(3) Stock-exchange business frequently affects rates, especially those of Paris and New York. If Paris has been buying Rio Tintos or Spanish over here, the demand for cheques to pay with will send up the exchange on the eve of settling day. So with New York: if investors here take a fancy for American Rails, Capel Court keeps up the supply by ordering from Wall Street, and the paper drawn by Wall Street against our purchases depresses the exchange.

(4) Next come loans. Lombard Street is the world's chief office-loan, and " Money lent without Security " its motto. Out of its annual savings, England could thirty years ago afford to lay out about £120,000,000 to £150,000,000 a year in investments of one sort or another, while in 1923 the total sum so lent equalled £136,000,000 : and foreign communities, suffering from chronic impecuniosity, take it in turns to try and raise money here on their promises to pay. If they succeed, bills are drawn on the loan-agents, and the exchange falls. In the opinion of many foreign finance-ministers, and of their advisers, the simplest method of correcting an adverse exchange is not, as might be supposed, to economize by reducing Government expenditure, but to raise a fresh loan; in other words, when a State finds it over-difficult to pay interest on what it has already borrowed, it borrows more. It may be added that if it cannot find a willing lender, the weapon of inflation is always at hand.

Foreign municipalities, railway companies, harbour boards, &c., also come here for money, and all such loans tend, at the time of issue, to turn the exchange against us.

On the other hand, the interest that has to be repaid hither on the hundreds of millions already lent is a permanent factor in our favour, the effect of which is most noticeable when preparation is being made to meet the half-yearly coupons in London, especially those due in January and July.

(5) Credits have been divided into three sub-heads.

By "Documentary" are meant those issued by continental buyers in favour of extra-European exporters. In America and the East, bills on London will at all times command a better price than bills drawn on continental bankers, because there is more demand for them : so that, if Germany orders cotton, for instance, it pays better to let the sender draw on London for German account, than to have him draw direct. The effect of such transactions was in pre-war days to incline the Eastern and American exchanges against us, and the German for us.

There are numerous cases, too, of countries trading together between which there exists no exchange. If a New York merchant orders a shipment of currants from the Ionian Islands, it would manifestly be of no use to ask the exporter to draw on him; and what he does, of course, is to open a documentary credit in London in favour of the shipper. London, in fact, is the international clearing-house and pay-office.

Travellers' credits may appear to be an item of very slight importance; but in the tourist season, from July to October, its effect is far from being insignificant, remittances from Switzerland, Italy, the South of France, the Tyrol, &c., being then largely made up of drafts against Circular Letters of Credit.

In his account of the operations for the payment of the Prussian indemnity, M. Léon Say estimated the amount spent yearly in France by visitors at £16,000,000; ¹ and in 1889, the year of the Paris Exhibition, the large

¹ See *Economist*, Feb. 9, 1878.

gain of three hundred million francs exhibited by the gold reserve of the Bank of France was attributed in great part to the coin brought into the country by tourists. It will be interesting to observe the effect, if any, of the 1924 Wembley Exhibition on the New York Exchange.

Italy also benefits from the same cause, as the following extract from a Foreign Office Report ¹ will show :—

“ It has often been a matter of interesting speculation to ascertain how, in the present depressed state of finance, it has been possible for Italy to find gold for the payment of the difference between her imports and her exports during many years past without a serious rise in the exchange with foreign countries, the rate of which has been, up to quite recently, but little in excess of that of a wealthy country like France. These differences amount this year to about £10,000,000 as against some £17,000,000 in 1890. To this fluctuating liability must be added the necessity for paying in gold the interest on that portion of the Public Debt held out of this country, which may be roughly assessed at another £10,000,000 annually. Italy has no gold mines, nor any visible means from which such large sums can have been drawn, without issuing large amounts of stock to an extent which would necessarily have depreciated their value far more than has been the case.

“ The only conclusion at which it is logically possible to arrive is that this amount of gold is annually brought into the country by foreign travellers who swarm during

¹ No. 1008. Report for the year 1891 on the Foreign Trade of Italy.

the four seasons of the year in one part of Italy or the other. From careful calculations made by the United States consular representatives in various parts of this country, it has been computed that for the last 10 years the average annual expenditure in Italy of American citizens has been \$35,000,000 (£7,000,000). It would scarcely be an exaggeration to place the collective expenditure of British, French, Austrian, German, and other foreign travellers at double this amount, which result would bring in round numbers at least £21,000,000 in foreign gold annually into the country.”¹

The third division is that of blank credits, given either to merchants, to bankers, or to exporters. As regards the former, London accepting-bankers are in the habit of granting accommodation to merchants abroad, who are of good standing and reputation, and who are able to make advantageous use of additional capital in the conduct of their business. Such transactions, however, only act upon the exchange when the credit is first opened, or when it is withdrawn, as on each occasion of ordinary renewal the merchant buys a remittance in

¹ The writer of the Report appears to base his argument on the supposition that money spent in a country by foreigners must mean the importation of so much actual coin—which is, of course, a mistake. It need hardly be said that the traveller usually brings a letter of credit in his pocket, not a bag of gold, and that, when short of cash, he draws a bill on London and negotiates it with a banker. As the bill is payable in, and represents, gold (the banker can have sovereigns for it, if he likes, by sending it to his London correspondent with instructions to that effect), the offer of it for sale operates on the exchange and on the gold-premium precisely the same as though the drawer had taken a handful of sovereigns to the bank and changed them into Italian notes.

cover, and simultaneously issues a re-draft, so that the one operation cancels the effect of the other.

Owing to the wealth and high position of most of the accepting houses, bills of this class rank with the best—though, strictly speaking, they are nothing but accommodation paper.

Bills drawn in blank by bankers admit of a different explanation. These are created in connection with exchange operations. In all agricultural countries the great bulk of the export business is concentrated on the harvest season. At this time of the year, therefore, bills on London are plentiful and cheap, while during the remainder of the twelvemonth they are more or less scarce and dear. Under these circumstances the local banks can earn a safe and legitimate profit by “bearing” London paper in the dear season, and by reversing the operation in the cheap season: that is to say, when the price is high they draw heavily on London and run up a big debit balance over here, and when the price is low, they buy enough to pay off their debt, and to leave a balance on the opposite side of the account.

Exporters' credits are of the same nature. Instead of drawing against his shipment when the market is full of similar paper, the exporter arranges, if possible, to draw a month or two in advance, in order to take advantage of the high rates ruling before harvest.

As a matter of course, the item of “Credits” also appears under the head of demand, because the money drawn from us in this shape has nearly all to be paid back.

(6) Under "Arbitrage" are to be understood those operations, whether of buying or selling, by which advantage is taken of any temporary difference between the exchange quotation at one place and its counterpart at another; and, as exchange dealers abroad frequently buy for the rise and sell for the fall, "speculation" may here be added.

(7) Political and speculative operations have played a notorious part since the war, and perhaps form one of the most pathetic chapters of the history of the last five years. The first phase began in 1919, and consisted in the almost universal faith on the part of the world in the ultimate recovery of the German mark. Even when the mark had fallen to 300 or 400, people were still to be found "buying for the rise." It is common knowledge now that they have lost all their money, and all they did was to enable Germany during those years to finance a certain portion of her import trade. By the end of 1922 the world had been disillusioned, but not before, to quote the McKenna Committee's report, Germany had been able to acquire foreign currencies to the tune of seven or eight milliards of gold marks.

The second phase was the "flight from the mark," when the Germans in their turn rushed to buy foreign currencies, in so far as lay within their power. The mark was known to be doomed, and all who could sought to abandon it.

The incipient "flight from the franc," and the manner in which the French Government turned the tables last March, will be fresh in the reader's memory. This chapter in late financial history will receive further consideration in the section dealing with the franc.

(8) Our last item—the demand for “investment” purposes on the part of continental bankers—is one that calls for particular attention, for though the exchanges that are subject to its influence are few in number, those few are the chief exchanges of Europe. From the fact, too, of its being the only element of demand in which the association of antecedent and consequent is plainly traceable, it is also the most interesting, and will be best dealt with in a separate chapter.

During recent years, the Board of Trade have published an annual estimate of our final balance of trade after taking into account the earnings of our shipping, our income from brokerage, commissions and insurance, dividends on overseas investments, &c., &c. The balance available for investment abroad is included, and also the amount so invested during each year. In order to show the effect of each item on the foreign exchange market, the figures for 1923 are repeated separately below. All figures represent millions of pounds.

	1907.	1910.	1913.	1920.	1922.	1923.
Excess of imports of merchandise and bullion ...	142	159	158	343	170	203
Net income from overseas investments ¹	160	187	210	200	175	150
Net national shipping income	85	90	94	340	110	110
Commissions	25	25	25	40	30	30
Other Services	10	10	10	15	10	10
Total “Invisible Exports” on balance	280	312	339	595	325	300
Available for investment overseas	138	153	181	252	155	97
New overseas issues on London market in year	91	207	198	53	135	136

¹ Includes interest on American debt.

BALANCE OF TRADE, 1923

Bills are drawn on London against—		Bills are wanted on London for—	
	£ million.		£ million.
Excess of imports of merchandise and bullion	203	Net income from over- seas ¹ investments ...	150
New overseas issues during year	136	Net national shipping income	110
	---	Commissions	30
	---	Other Services	10
Total	339	Total	300

From the above table it would appear that there was a net balance against us on the year of £39,000,000; whether this is so cannot be determined. Reference to the preceding part of this chapter will show that many items have been left out of account, simply because the amount they cover cannot be assessed. Even the above items are, in several cases, only approximately correct. Again, no allowance can be made for the balance brought in from 1922 or carried forward to 1924. At the same time, it has been argued that during 1923 we invested too much money abroad, and that this was one cause of the movement of the New York Exchange against us. How far this theory is correct must, however, remain undetermined. Sufficient data are not available either to establish or disprove it.

¹ Includes interest on American debt.

XV

THE CONTINENTAL INVESTMENT-DEMAND FOR LONDON PAPER

The functions of a banker.—Distinctive qualifications of a banking security.—Bills of exchange as investments.—Continental bankers buy those that yield the best return.—If the London market-rate rises above the continental level, bills on London are sought after abroad and the price rises.—The lower the price, the sooner it is affected by a difference in discount-rates.—There is no necessary ratio between an advance of the discount-rate and a consequent advance of the sight-exchange.

A **BANKER** has been defined as a man who takes care of other men's money and lets them have it when they want it.

His function, all the world over, is to borrow from those who possess more money than they can employ, and to lend to others who can employ more than they possess: and the vital condition of his business is to lend in such a manner, and *on such securities*, as will enable him to keep the promise he has made to repay whenever asked.

Certainty of repayment without loss at a specified and not distant date, combined with the capability of immediate conversion into cash, if need be, is the distinctive qualification of a theoretically perfect interest-bearing banking security. A Treasury Bill attains perfection, and a first-class bank-bill closely approaches

it. Good bills of exchange, in fact, satisfy nearly every requisite, as they are rendered safe by the joint liability of drawer, acceptor, and endorsers, are paid punctually to the day, and are paid at par.¹

All bankers therefore are regular buyers of bills; but while the London banker confines his choice solely to London paper, his more cosmopolitan colleague on the Continent shows himself less fastidious in that respect, and holds large amounts of foreign, as well as home, acceptances. Whether the conservatism of the London banker is altogether justifiable, is a question that it may be useless to discuss; but it may be remarked in passing that, regarded merely as an investment, a good foreign acceptance, when it can be bought at par plus interest, certainly appears more attractive than an English acceptance yielding the same rate of interest, especially if the former is backed up by a first-class London endorsement, as is the case with most of the foreign bills sold on 'Change. It may be added, too, that there is no loss of prestige incurred in re-selling a foreign bill.²

¹ Their only fault is that they are not saleable. There being an unwritten law in this country that the banker shall not hawk the bills he holds about the market, that is to say, that he shall not rediscount, they lack the attribute of convertibility, and can only be turned into cash in case of great emergency and at the risk of a serious loss of prestige.

² The frequency with which the best London paper changes hands on the Continent is very noticeable, it being no unusual thing to find that the endorsements, after entirely covering the back, have overflowed on to an "allonge," which has had to be attached to accommodate them. If a London banker is in want of cash to meet payments, he calls in part of his loans to the brokers; if a Paris or Berlin banker needs it, he sells a parcel of his foreign paper.

Other things being equal, the continental banker naturally gives the preference to bills on that country where discount stands highest, in order to profit by the better return they give; and, consequently, if the London market-rate rises higher than the market-rate of Berlin, or of Paris, or Amsterdam, or Antwerp, &c., the bankers in those places at once begin buying London paper, and the price rises. The mere fact that *bank-rate* stands higher here than abroad counts for very little, because, as was pointed out, the seller of a first-class bill allows interest to the buyer only at the *market-rate* of the place upon which it is drawn; and, of course, it is only first-class paper that a banker cares to buy for investment. If such is not to be had at home in sufficient quantity, he orders what he wants through his London correspondent, who gives it out of his own bill-case if he has sufficient, or, if not, buys it from the bill-brokers. The usual method of covering the transaction is to remit ordinary trade-bills, as far as possible, and to make up the difference by instructing the London correspondent to draw and sell a cheque, thus acting on the exchange from this side as well.

It does not follow because a Berlin banker buys a London bill with 3% interest allowed, that he is sure to net 3%, any more than a London banker can be sure of making 2 $\frac{3}{4}$ % on his money by buying Consols today and selling them two months hence with accrued interest. In either case the price may rise or fall in the interim, increasing the yield or diminishing it. As a consequence, an advance of the London market-

rate proves far more attractive when bills are cheap, and have plenty of room to rise, than when they are already high.

To render this more intelligible, let us say that on a given date cheques on London stand at 20.40 ¹ (Berlin quotes 8-days London, not cheques—but let that pass), market-rate on both sides at 2%, and long London at 20.40 less 3 months at 2% (= 20.30). Market-rate in London now hardens to 2½%, and the long-rate is accordingly adjusted to 20.40, less 3 months at 2½% (= 20.27); but, as the discount margin is sufficient to induce purchases, the enhanced demand may cause an advance of, say, 1 per mille, to 20.42 less 2½% (= 20.29), while, if discount here continues to rise, and goes to 3% or 3½%, we may see the exchange gain several points.

Let us put it at 20.46, less 3% (= 20.31). Now, if a Berlin banker buys £1000 on London at this price, paying M.20,460, minus 3% p.a., and keeps it until it is due, it is evident that, if he is to make exactly 3% on his investment, the sight-exchange at which he sells must stand again at 20.46, and that every point that it may have fallen in the meantime will reduce the return. At 20.41, for instance, the bill would only yield ½% for the three months (20.41 — 20.31 = 10 pf. = ½%), or 2% per annum. As the usual range of the short-rate is from 20.35 to 20.50, it is clear, therefore, that the nearer he goes to 20.50 in buying, the greater is the danger of a relapse in the rate, and of a consequent loss on

¹ This is clearly a pre-war example.

realization : so that, as was said, whilst a small difference in discount may serve to raise a low rate of exchange, it takes a considerable difference to push up a high rate.

It is necessary to guard against the mistake, which it is easy to fall into, of supposing that there is any arithmetical relationship between an increase in the discount-margin and a rise of the sight-exchange.¹ Because a discount-difference of $\frac{1}{2}\%$ causes a rise of two points on one occasion, it need not cause it on another, nor need a difference of 1% produce a rise of four points. There exists no necessary ratio whatever. The buying for investment is strong or weak according to the outlook of the money-market at home and abroad, and according to the state of credit, &c.—in a word, if bankers think the operation likely to turn out well, they buy freely, and the exchange goes up; but if they think it likely to turn out badly, they leave it alone, and the exchange remains unaffected.

¹ Any more than there is an exact relation between the price of ordinary shares and the last dividend declared by the Company concerned.

XVI

THE CONTINENTAL INVESTMENT-DEMAND FOR LONDON PAPER—(*continued*)

Owing to the want of necessary data it is in most cases impossible to ascertain the specific cause of exchange-movements,—But in the case of the investment-demand cause and effect are intimately associated.—A comparison between the movements of the principal short exchanges in 1890 and those of the respective discount-differences.—How the principle is illustrated by the usage of sending “Firsts for Acceptance” to London.—Without good credit there can be no investment-demand.—How and why a 10% Bank-rate in 1866 sent the French exchange down instead of up.

IF it be the fact, as suggested, that bankers on the Continent begin buying up London paper as soon as the interest obtainable upon it exceeds the rate to be earned on native acceptances, it stands to reason that, immediately such conditions obtain, its price ought to rise; and if it can be demonstrated that the price actually does rise when the London discount-rate advances, the confirmation thereby afforded will go far to prove that the theory is correct.

Every element of demand must at times exert some influence on the exchange, but in the majority of instances the evidence is wanting which would enable us to say that this or that, and not the other, is the principal cause of a given movement. To compare, for

example, the course of the Paris exchange with the published statistics of our trade with France would, for many reasons, be labour in vain; a foreign loan may have been "taken firm" and paid for months, or even years, before its introduction to the public; the business in securities is nobody's business but theirs who engage in it; the sum total of tourist-expenditure, or of the foreign credits granted by London bankers, is an unknown quantity; and so on of the other factors. About all these agencies we are quite in the dark.

But with the demand for investment-purposes the case is different. Not only are the necessary data public property, but cause and effect are so intimately associated that the connection is unmistakable. A glance at the *Times* or the *Economist* shows us the course and tendency of the respective market-rates, and as the difference between them inclines the one way or the other, so we expect the exchange to rise or fall; and, in nine cases out of ten, on turning to the Course of Exchange the fulfilment of our expectation stares us in the face. Thus, let us suppose that a week ago the quotations were—

London market-rate	$3\frac{3}{8}\%$	} London $\frac{1}{2}\%$ above Paris
Paris	$2\frac{7}{8}\%$	
Sight-rate on London in Paris 25.19. ¹		

but that London has since gone up to $4\frac{1}{4}\%$, and Paris gone down to $2\frac{1}{2}\%$, increasing the difference to $1\frac{3}{4}\%$: are we to infer that the exchange should have fallen or

¹ July 4, 1890.

have risen, and need we be surprised to find it marked 25.27 ? ¹

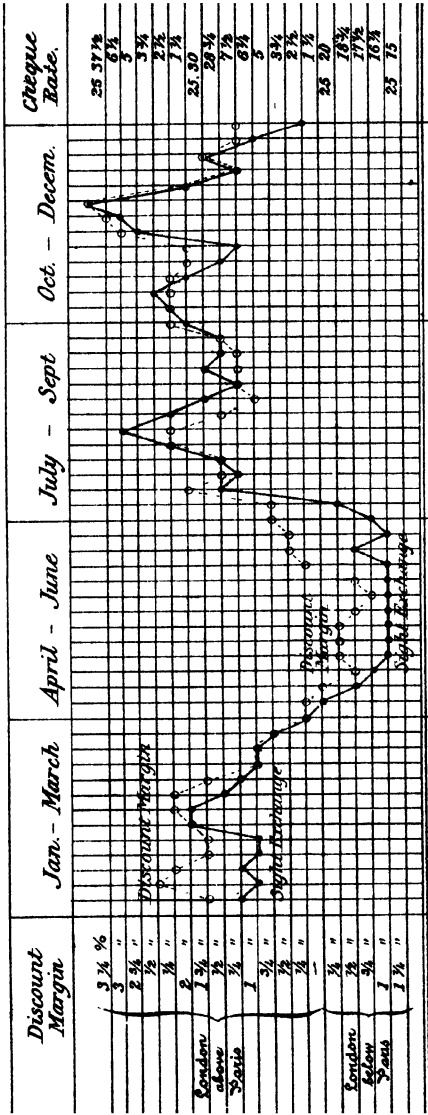
In the adjoined diagrams a practical exemplification of this principle is furnished in the shape of a comparison between the movements of the French and German rates in 1890 and those of the respective discount-differences, and when it is borne in mind that exchange-fluctuations are the effect of many causes, while only one such cause is dealt with, it may be fairly claimed that the general truth of the law is placed beyond doubt.²

Bills themselves also bear witness to it. Every one conversant with banking practice is acquainted with the usage of sending the First of a bill to London for acceptance (in order to facilitate the negotiation of the Second, an accepted bill selling better than one not accepted) and of requesting that it be held until claimed by the possessor of the duly endorsed Second. If the continental holder of the Second should keep it back—and that he does keep it back a while is the rule, not the exception—it must be for one of two reasons: either for the sake of the interest it returns him, or in expectation of an improvement in price. Accordingly, when discount stands higher in London than abroad, it will be found that, as a general rule, the First is not

¹ July 11, 1890.

² It is needless to add that since the war these small movements have been lost in the wide fluctuations due to other causes. To quote an obvious case, the rise in the London bank rate from 3 to 4% in July 1923 did not prevent the subsequent depreciation in sterling as against the dollar.

1890.
 The difference between the Market rates of discount in London and Paris compared with the price in Paris of Cheques on London



claimed until it is nearly due, because the Second has been retained until the last moment; and, on the other hand, that if discount here falls below the foreign level, an immediate increase is perceptible in the number of Firsts that come forward.¹ It is noticeable, too, that "Firsts for acceptance" are rarely sent from those countries where interest mostly rules high (except when the Second has been remitted elsewhere, and the First comes direct simply to save time), but that the bill is usually endorsed and remitted hither at once. New York, for instance, sends very few; and it may be taken for granted that American bankers can generally employ their money to better advantage than by putting it into London bills, and have therefore no inducement to hold back their purchases as an investment.²

In the latter part of 1890, the year to which the diagrams apply, London narrowly escaped a tremendous panic which was averted by the skilful management of the Governor of the Bank of England, and it is surprising to observe how efficiently the measures taken to save the situation preserved our credit abroad from injury. There is absolutely nothing in the course of either the Paris or the Berlin exchange to show that anything unusual happened here in November: and even the long-rate maintained its position, the quotation in Berlin on 20th November having been 20.38½ for eight-days paper and 20.10 for three-months paper,

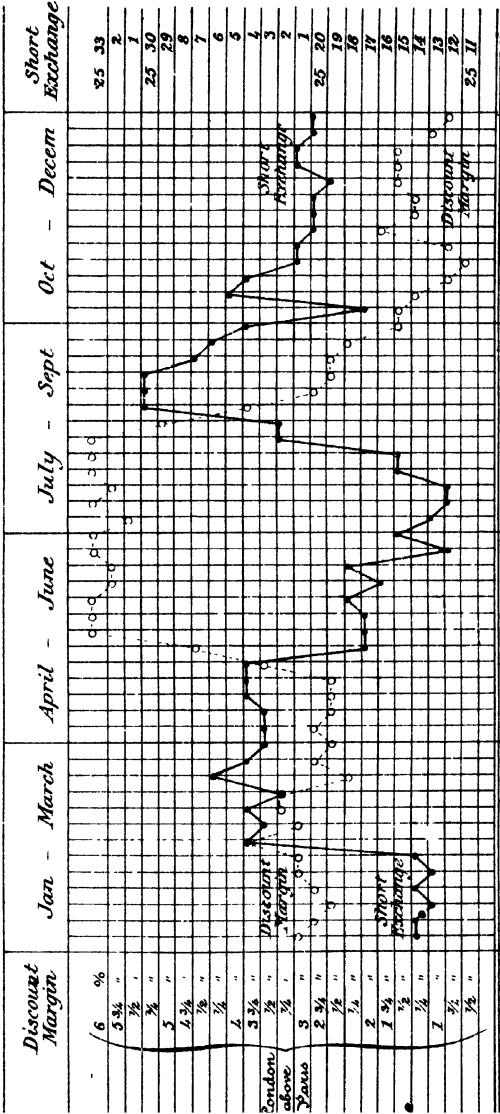
¹ These are points that of course can only be verified by those who have special opportunity for observation.

² It happens occasionally that they keep some for a short time, but probably more as a speculation than as an investment.

which, with discount in London at $6\frac{1}{2}\%$, was just about the normal variation. It need hardly be said that if our credit had been seriously impaired the result would have been very different.

Without good credit—without a general belief that the average acceptor of ordinary commercial paper is good for the amount, and will punctually meet his engagements—there can be no investment-demand. Continental bankers do not, for obvious reasons, send capital to Constantinople for investment in native bills, nor would they put it into English bills unless they felt absolutely sure of getting it back. No better proof—if proof be needed—can be put forward of the truth of this proposition than the course of the Paris exchange in 1866, which was the last occasion of an actual crisis in London. The Paris rate on London is still one of the leading exchanges, but at that time it stood indisputably first, and may be accepted as representative of the then state of continental opinion. For fully three months, as the diagram shows, there was a discount-margin of no less than 6% between London and Paris, and yet the exchange, instead of rising, fell as far as it was possible for it to fall. For fully three months continental bankers could have bought the best London acceptances at a price which would have returned them 9 or 10% , and yet, so low had our credit fallen, that they preferred to employ their money at home at 3 or 4% . We tried to explain away their suspicions; but in vain. Lord Clarendon, who was then in charge of the Foreign Office, went to the length of issuing a

3 The difference between the Market rates of discount in London and Paris in 1866 compared with the Short Exchange on London in Paris.



circular to all our representatives abroad, in which they were instructed to make known to the Governments to which they were accredited, and to the banking-interest generally, that "Her Majesty's Government have no reason to apprehend that there is any general want of soundness in the ordinary trade of this country which can give reasonable ground for anxiety or alarm either in this country or abroad." Nevertheless, continental bankers persisted in believing that there *was* reasonable ground for anxiety, and declined to trust us with their money.

It is probable that there were two main reasons for their mistrust. In the first place, they did not understand what was meant by the suspension of the Bank Act (which is not to be wondered at, seeing that there are plenty of business men even in London who would find it difficult to say just what it means). They thought, of course, that it implied a suspension of cash payments, or what it has now become the euphuistic fashion to call a "moratorium." And when reassured on this point there was still another difficulty. "It is all very well," they objected, "to say there is no reasonable ground for alarm; but, if so, then why do the Directors of the Bank of England, who must be far better judges of the situation than Her Majesty's Government, exact such an exaggerated charge for their advances? Surely, first-class London acceptances ought to be good enough to lend on at less than 10%! If not, depend upon it, there must be some mysterious peril still hidden away in the background; and, unless we

want to burn our fingers, we had better leave London paper alone.”

And they did leave it alone. The very magnitude, in fact, of the inducement held out to attract foreign capital had the opposite effect of scaring it away; and *immediately the Bank saw its mistake*, and gave proof of its own returning confidence by reducing the rate, *the exchange recovered*.

XVII

THE CONTINENTAL INVESTMENT-DEMAND FOR LONDON PAPER—(*continued*)

How and why a reduction of the discount-margin immediately sends the continental exchanges down.

HAVING seen what happens when, owing either to a rise in discount here or to a fall abroad, the return yielded by an investment in London paper exhibits an increased advantage over the rate produced by home bills, let us now consider what will occur in the opposite event of discount declining on this side or advancing on the other.

Naturally, the buying to keep will at once slacken; and, if the margin disappears, will cease altogether. With its cessation, too, the rise in price will also come to an end.

But that is not all. The exchange not only stops rising, but it immediately begins to fall, and falls rapidly. This proves that bills are being pressed for sale, as the decline of price, if occasioned solely by want of support, would be slow and gradual; and, as it is not plainly evident why a reduction in the London discount-rate should render continental bankers so solicitous to dispose of their London paper as to force down the price,

we are put upon our enquiry to account for this anxiety to sell.

It is simply a question of securing a quick profit, and will be readily understood if the following illustration be examined—

Suppose that Germany employed the English system of currency, and that, on a certain day, when discount here stands at 4%, Berlin quotes cheques on London (assuming the existence, for simplicity's sake, of a cheque-rate) at "par," and three-months bills on London at "par, less 4%," the price of a bill for £100 being £99 net. On the following day discount falls here to 3%, and Berlin, while still quoting cheques at "par," now gives long as "par, less 3%," so that a bill for £100 costs £99 5s. Consequently, those who bought yesterday at £99 can make an instant profit of $\frac{1}{4}\%$, either by selling the bill at £99 5s, or by remitting it to London for discount at 3%, and selling a cheque there-against at par.

The eagerness to realize is thus amply accounted for, and the only question is: What sacrifice will the average holder submit to in order to sell? This is purely a matter of surmise; but if we assume that he surrenders half his profit to secure a buyer, the price will fall to

Cheques, $\frac{1}{8}\%$ dis.; long, $\frac{1}{8}\%$ dis. — 3%,

and if he surrenders all (as he may, if discount is rising in Berlin, or if he thinks he can do better with his money in something else), to

Cheques, $\frac{1}{4}\%$ dis.; long, $\frac{1}{4}\%$ dis. — 3%.

This is the natural and intelligible way of quoting exchanges, and is what we may expect when the Utopia of a universal currency is attained. But, as we have to deal with things as they are, we must now translate the figures into German currency, and merge the discount-difference into the current price of a pound, as expressed in German money.

The original price was—

Cheques, at par = 20.43; long, at par, less 4% = 20.23,
and after the drop in the London discount-rate it becomes nominally—

Cheques, at par = 20.43; long, at par, less 3% = 20.28,
but if the seller gives up half his profit, the actual rate that business is done at will be—

$$\text{Cheques, } \frac{1}{8}\% \text{ dis.} = 20.40\frac{1}{2},$$

$$\text{Long. } \frac{1}{8}\% \text{ dis.} - 3\% = 20.40\frac{1}{2} - 15 = 20.25\frac{1}{2},$$

while if he gives it all we have—

$$\text{Cheques, } \frac{1}{4}\% \text{ dis.} = 20.38,$$

$$\text{Long, } \frac{1}{4}\% \text{ dis.} - 3\% = 20.38 - 15 = 20.23,$$

the net result in this latter case being that long bills are restored to their *original quotation* of 20.23, but that the cheque-rate, *the actual exchange*, is marked *five points down*, from 20.43 to 20.38.

To show that this interpretation is based on facts, and has not been evolved from the writer's inner consciousness, here are particulars of the fall in the German exchange that occurred, as shown in the diagram, in the

spring of 1890, and which may be verified by reference to the *Economist* :

1890.	Berlin on London.		London.	Berlin.
	8 days.	3 months.	Discount.	Discount.
27 Feb.	20.45	20.26	4	$3\frac{3}{4}$
13 Mar.	20.41	$20.26\frac{1}{2}$	3	$4\frac{3}{4}$
27 Mar.	$20.36\frac{1}{2}$	20.24	$2\frac{5}{8}$	$3\frac{7}{8}$

On the first-mentioned date the short-rate was at 20.45, and the long at (20.45, less 82 days at 4%, &c. =) 20.26. The fall to 3% in London reduced the margin between short and long from 19 pf. to $14\frac{1}{2}$ pf., and altered the price, theoretically, to $20.45 - 20.30\frac{1}{2}$; but, as discount was going up in Berlin, holders were content to forgo almost the whole of the profit, and the price fell 4 pf. to $20.41 - 20.26\frac{1}{2}$. Taking this price as a fresh basis, the renewed fall in London should have modified it to 20.41 short and $20.28\frac{1}{2}$ long (20.41, less 82 days at $2\frac{5}{8}\%$), but the weakness of our market frightened holders into selling at an actual loss, and the exchange sank $4\frac{1}{2}$ pf. to $20.36\frac{1}{2} - 20.24$.

XVIII

THE MONEY-MARKET AND THE GOLD-EXCHANGES

The Coinage Act, 1870.—An engagement to pay money is an engagement to pay gold.—To bankers, who are under engagement to pay large sums at short notice, this fact is all-important.—All the clearing-bankers keep an account at the Bank of England.—A demand for gold, in whatever part of the country it may spring up, must fall on the Bank of England.—The amount of gold in circulation varies with the state of trade.—And the amount of notes with the state of credit.—Why other countries send to London for gold, and what they want it for.

IN order to avoid confusion, it has so far been assumed that the range of movement of every exchange is bounded by well-marked and unmistakable limits, defined as, on the one hand, the point at which bills on London become so expensive that the intending buyer would do better to remit gold, and, on the other, the point at which they become so cheap that the intending seller, instead of drawing, would do better (notwithstanding the expense of carriage) to ask his English debtor to send sovereigns. This latter extreme, the inferior limit, is always efficacious; for in pre-war days only under circumstances of the greatest urgency (such as peremptory expulsion, the outbreak of war, or revolution, &c.) would a merchant abroad consent to sell his claim on London for less than the sovereigns themselves would fetch, minus charges; while since the war he has been

unable to do so at all. But the superior limit, that at which he is supposed to remit gold, is operative in only very few instances; the reason being that, in many countries, gold is only to be had at a premium, even if it is to be had at all.

We have still to ascertain, therefore, whether any definite limitation can be assigned to the adverse movement of an exchange in those cases where a specie-barrier does not exist; but it is expedient to defer the consideration of this question until the gold-exchanges are out of hand.

The matter which it is now proposed to bring under notice does not in strictness come within the scope of an enquiry into the theory and practice of the Foreign Exchanges, but it is so closely allied to and bound up with it that to entirely exclude it would be all but impossible. What is alluded to is the sympathetic connection known to exist between the price of loanable capital in the London market, and the general condition, favourable or otherwise, of the gold-exchanges. Already there has been occasion to make a passing reference to this connection. In defending the use of the term "unfavourable," as applied to a rate of exchange, it was urged that "dear money" is due to a high bank-rate, a high bank-rate to a low reserve, a low reserve to an outflow of gold, and an outflow of gold to an "unfavourable" exchange.

It may be argued that the following four chapters picture conditions that now have passed, that it is idle to consider the movements of the money-market at a

time when the export of gold was still legal; when the more important foreign exchanges never moved beyond their gold points; when the currency note did not exist; and when the Treasury Bill was comparatively unimportant. In the reviser's opinion this view is mistaken. It is only after the working of the machine under normal conditions has been understood that the modifications introduced by the above factors can be appreciated. The post-war money-market is reviewed in Chapters XXII and XXIII, but the pre-war situation should be mastered first.

The process of which this is a synopsis it is now proposed to trace out in detail, taking as starting-point the fourth section of The Coinage Act, 1870, which says that :—

A tender of payment of money, if made in coins which have been issued by the Mint in accordance with the provisions of this Act, and have not been called in by any proclamation made in pursuance of this Act, and have not become diminished in weight, by wear or otherwise, so as to be of less weight than the current weight, that is to say, than the weight (if any) specified as the least current weight in the first schedule to this Act, or less than such weight as may be declared by any proclamation made in pursuance of this Act, shall be a legal tender,—

In the case of gold coins for a payment of any amount :

In the case of silver coins for a payment of an amount

not exceeding forty shillings, but for no greater amount :

In the case of bronze coins for a payment of an amount not exceeding one shilling, but for no greater amount.

Nothing in this Act shall prevent any paper currency which under any Act or otherwise is a legal tender from being a legal tender.

The paper currency referred to is the Bank of England note, which was declared legal tender in 1835. As the Bank, however, must put aside the exact equivalent in gold of every note created in excess of the fixed fiduciary issue, the note to all intents and purposes is gold.

Every engagement contracting to pay money in this country is bound to be met, therefore, *if required*, in gold.¹ Notwithstanding the fact that our current engagements always amount to many hundreds of millions, and that all the gold in the country would hardly suffice to effect a single day's settlements, the law says that every creditor may insist on being paid in sovereigns. Of course, if it were customary to exercise this right, trade operations on a large scale would be simply impossible, and business would have to come to a standstill. But there is a conventional understanding that the use of gold shall, as far as possible, be dispensed with. Cheques, which are

¹ Or (since 1914) in currency notes.

infinitely more convenient than gold and notes, and which are safe enough for all practical purposes, constitute in ordinary times the actual currency of commerce. If you have to pay a man you give him a cheque; and, if he has to pay you, you take a cheque. Nevertheless, the all-important fact that gold or notes can always be called for must never be lost sight of, and especially not by those who are under liability to make heavy payments at short notice.

In this respect bankers stand pre-eminent. Their business is to trade with other people's money—to lend A's money to B; and such business is never safe unless a sufficient amount of cash be kept to satisfy the demands of depositors. It is out of the question to suppose that bankers ought to be able to repay all, or even the greater part, of their deposits in cash. They cannot achieve impossibilities. Seeing that the total amount of customers' money held by them is estimated at nearly £700,000,000,¹ while the country's entire stock of legal money is believed not to exceed about £100,000,000, it is no slur upon them to say that they are not prepared to meet a run.² The most they can do is to keep in hand a reasonable surplus over and above each day's anticipated out-goings. In addition, however, the whole of the clearing-bankers, and many others as well, keep a balance at the Bank of England: and on this

¹ *Economist*, May 21st, 1892.

² On December 27th, 1923, legal money (including currency notes) amounted to about £423,000,000. The total deposits of nine clearing banks (excluding the National Bank) aggregated £1,672,958,000.

seemingly insignificant fact hinges the entire connection between money and the exchanges.

When ever the country branch-banks require more notes they write to the head-office; if the head-office wants more it applies to the London clearing-agent; if the clearing-banker wants more he sends across to the Bank.¹ The effect is precisely the same as though every bank in the length and breadth of the country were a branch of the Bank of England, keeping just enough notes and coin to go on with, and sending up to headquarters whenever it became necessary to increase the stock. Owing, therefore, to the fact of the Bank of England having opened an account for each of the clearing-bankers, force of circumstances compels it to keep up a store of legal-tender money for the requirements of the country at large.

Such being the case, let us ask what the currency-requirements of the country are, and under what circumstances they may increase. As to the notes, they are nearly all in possession of the banks: but the gold² is divided between bankers, shopkeepers, and the general public—the two former using it for till-money, and the latter for ordinary expenditure. The amount in circulation varies with the state of trade. If trade revives, many employers of labour work longer hours and take on more hands. Tens of thousands of operatives who were only taking, say, a pound or twenty-five

¹ The process is the same in the case of one of the five joint-stock banks, save that the "head-office" is the "clearing-banker."

² Now replaced by currency notes: *v.* pp. 137 *seq.*

shillings home on Saturday, now take an extra half-sovereign. Thousands of shopkeepers who only kept three or four pounds in the till, now keep six or seven, because they are doing more business. In short, more money is in actual use throughout the community, and the Bank of England has to make up the difference.

Loss of confidence, or failure of credit, also leads to the employment of more legal-tender. In time of panic many payments have to be effected by bank-note, instead of by cheque, because merchants refuse to take the cheque of any man whose solvency they have doubts about. At such times, too, fear of a "run" induces bankers to increase their till-money, and the two influences together tell heavily on the Reserve.

The gold movements that interest and concern us most, however, are those of foreign origin. Drains due to trade revival or panic are events of rare occurrence, but withdrawals for abroad are every-day matters. London being a free market for gold, all who have need of it usually send their orders here for execution. The purposes for which it is required are various. It may be wanted as a basis for extended note-issues, as in the case of the exports to Brazil in 1889; for currency purposes, as in the case of the coin sometimes sent to Portugal or Egypt; as raw material for goldsmiths' or jewellers' work, as in the case of Indian purchases; or as a speculation, as in the case of some shipments in 1891 to the Argentine Republic.

Lastly, and this is the most important cause of all, it is sure to be taken from us whenever bills on London

become so plentiful in any of the world's markets as to depress the exchange to specie-point; and, what is more, it will continue to be so taken until the exchange rises.¹

¹ It may be well to repeat the warning that this refers to pre-war conditions.

XIX

THE MONEY-MARKET AND THE GOLD-EXCHANGES

(continued)

The effect of every efflux of gold is to reduce the Reserve.—Why a withdrawal of gold from the Issue Department diminishes the stock of notes held by the Banking Department.—A rise of Bank-rate pulls up the deposit-rate, and a rise of the deposit-rate pulls up market-rate.

WHATEVER the cause may be of an efflux of gold from the Bank of England, the outcome is always the same. The Reserve is reduced by the amount of the withdrawal; and, if the reduction is serious, the Bank advances its rate, in order to check the drain and to attract fresh supplies.

It is, of course, all one to the Bank whether a demand is for notes or for gold; but as the Reserve is shown in the Weekly Return to consist principally of notes, while the bulk of the gold stands at the credit of the Issue Department, thus—

ISSUE DEPARTMENT.			
Notes ...	£38·8 millions.	Securities	£16·4 millions.
		Gold	22·4 „
	<hr/>		<hr/>
	£38·8 „		£38·8 „

BANKING DEPARTMENT.

Capital and Rest	£18 millions.	Gov. Securities...	£11·7 millions.
Deposits	37·2 ,,	Other Securities	28·7 ,,
		Notes } "The	13·8 million
		Coin } Reserve"	1 ,,
	<hr/>		<hr/>
	£55·2 ,,		£55·2 millions

it may not be clear to every one why a withdrawal of *gold* should affect the *note-reserve* of the Banking Department.

This is why. The Banking Department makes an invariable practice of depositing all its gold (with the exception of about a million of coin always kept for till-money) in the Issue Department, and of taking notes in exchange, because the latter are more convenient to handle. If such were not the case, the Return would present the following appearance :—

ISSUE DEPARTMENT.

Notes	£25 millions.	Securities	£16·4 millions.
		Gold	8·6 ,,
	<hr/>		<hr/>
	£25 ,,		£25 ,,

BANKING DEPARTMENT.

Capital and Rest	£18 millions.	Gov. Securities...	£11·7 millions.
Deposits	37·2 ,,	Other Securities	28·7 ,,
		Gold	14·8 ,,
	<hr/>		<hr/>
	£55·2 ,,		£55·2 ,,

that is to say, the gold held by the Issue Department would be split into two parts, of which the larger would figure among the assets of the Banking Department, to which it really belongs.

When a depositor asks for gold, then, say for half a million, notes to that amount are taken from the

Reserve and returned to the Issue Department, which cancels them and gives up the sovereigns that it holds there-against.

The effect on the balance-sheet of the Issue Department is to reduce each side by half a million—

ISSUE DEPARTMENT.

Notes £38·3 millions.	Securities £16·4 millions.
	Gold 21·9 „
£38·3 ..	£38·3 ..

and, in the first instance, the like result is produced in the account of the Banking Department—

BANKING DEPARTMENT.

Capital and Rest £18 millions.	Gov. Securities... £11·7 millions.
Deposits 36·7 „	Other Securities 28·7 „
	Notes... .. 13·3 „
	Coin 1 million
£54·7 ..	£54·7 millions

but if, as would usually be the case, the market restores its balance to the former level by borrowing or discounting, the deficiency in the Reserve will be made up by an increase in the Other Securities, thus—

BANKING DEPARTMENT.

Capital and Rest £18 millions.	Gov. Securities... £11·7 millions.
Deposits 37·2 „	Other Securities 29·2 „
	Notes... .. 13·3 „
	Coin 1 million
£55·2 ..	£55·2 millions

Observe that the assets are now the same in *quantity* as they were before the withdrawal, but are lower in

quality, inasmuch as an amount of notes representing gold has been displaced by credit-instruments, so that the ability of the Bank to pay its depositors *in cash, on demand* is to that extent diminished.

Every van-load of gold, therefore, that enters or leaves the well-known courtyard in Lothbury increases or decreases the Bank's power to meet its engagements in legal-tender money; and if the withdrawals are large, or if they appear likely to be persisted in, the Bank puts up its rate as a means both of damming the outflow and of turning the continental gold-exchanges in our favour. As is well known, bank-rate cannot rise without drawing up the market to a greater or less extent, and hence the direct and immediate result of an important efflux of gold is an all-round advance of the discount-charge.

The value of "money" being, however, like that of all other commodities, regulated by the ratio that supply bears to demand, an advance of bank-rate need not, on the face of it, affect the price charged by other dealers, any more than the fact of one big coal merchant adding a shilling a ton to his quotations need compel all other coal merchants to do the same. But between the Bank and the market there exists a bond of union in the shape of the deposit-rate. It is not their own money that bankers and brokers employ in the discount of bills, but their depositors'; and the rate allowed on deposits is based on bank-rate, rising and falling with it. When bank-rate goes up, therefore, the market, having to pay more to A, from whom it borrows,

recoups itself by charging more to B, to whom it lends. In other words, a rise of bank-rate pulls up the deposit-rate, and a rise of the deposit-rate pulls up market-rate.

XX

THE MONEY-MARKET AND THE GOLD-EXCHANGES

(continued)

As the market has ample warning of the gold-shipments due to unfavourable exchanges, it is usually prepared for them.—The New York exchange in October 1891, and the influence of its fluctuations on the London market-rate.—Why an advance of the discount-rate checks an outflow of gold.

RETURNING to the question of gold exports, there is an important distinction to be noted, between the shipments made to order for a specific object and those which result from the unfavourable course of the exchange. The former nearly always come as a surprise on the market, as it is usually impossible to know of them until they are announced by the Bank; but the latter, being an outcome of conditions which are apparent to every one, can be seen approaching, so to say, and the market prepares itself for them in advance.

If it be the New York exchange, for instance, which threatens to relapse to specie-point, as is often the case in the autumn, the market, it will be found, begins to watch it closely when it gets to about 4.84¹ (for cable

¹ “There is every probability that considerable shipments will soon have to be made to the United States” (Cable transfers 4.83½).—*Economist*, Oct. 3, 1891.

“As it is practically certain that gold will continue to be with-

transfers), and from that time responds to every fluctuation—stiffening as the exchange weakens, easing as it hardens. This sympathy is especially observable when floating money is growing scarce, and when the Other Deposits at the Bank are below the average, for there is then every probability that the curtailment of supply will lead to brokers having to repay some of their call-money, and, as they keep practically no reserve, this means that they will have to borrow from the Bank, which at such times usually makes a pretty stiff charge for short loans. Naturally, therefore, they have to be cautious how they increase their commitments; and their anxiety to borrow rather than lend finds practical expression in a higher charge for discounts and a higher allowance for deposits.

To facilitate the comprehension of the foregoing, we will take the course of the New York exchange in October 1891 as an object-lesson, and read it in the light of a few extracts from the “money-article” of the *Times* :

1891.	60 days sight-rate on London.	Market-rate in London.
3rd Oct.	480	27 $\frac{7}{8}$ % — 3%

“The large withdrawal of gold expected in some quarters to-day has not taken place, from which it may be inferred that the New York exchange at 480 leaves too narrow a margin.”

drawn both for the United States and elsewhere” (Cable transfers 4.83 $\frac{3}{4}$).—*Economist*, Oct. 10, 1891.

“With the prospect before us of gold withdrawals for the United States” (Cable transfers 4.84).—*Economist*, Oct. 17, 1891.

“More gold will in all likelihood be taken hence for the United States” (Cable transfers 4.84).—*Economist*, Oct. 24, 1891.

6th Oct. 479 $\frac{3}{4}$ 27 $\frac{0}{8}$ % — 3%

“A small amount of gold has been taken from the Bank of England for New York in consequence of a small decline in the exchange.”

10th Oct. 479 $\frac{3}{4}$ 27 $\frac{0}{8}$ %

“The demand for gold for New York continues strong . . . and as long as this state of things lasts the discount-rate for three-months bank-paper is not likely to fall much below its present level.”

16th Oct. 480 $\frac{3}{4}$ 25 $\frac{0}{8}$ % — 3 $\frac{0}{4}$ %

“A distinctly easier tendency is observable in the money-market to-day, and the discount-rates are all rather lower. . . . It is not expected that any more gold will be sent to the United States yet.”

21st Oct. 480 $\frac{1}{2}$ 23 $\frac{0}{8}$ % — 1 $\frac{0}{2}$ %

“The fall in the discount-rate has apparently caused the drain to the United States to recommence.”

27th Oct. 480 $\frac{1}{2}$ 21 $\frac{0}{2}$ % — 25 $\frac{0}{8}$ %

“The money market opened with a rather firmer tendency, the rate for three-months bank-bills being quoted 21 $\frac{0}{2}$ %, at which rate most of the day’s transactions were effected; but, in the afternoon, when it became known that a quarter of a million was being withdrawn from the Bank of England in American Eagles, 25 $\frac{0}{8}$ % was generally asked, and even higher rates were quoted in some quarters.”

From these comments (which are distinct evidence of the sympathy between discount and the exchange) we are led to infer that when the New York rate is on the verge of specie-point, not only will a further relapse of the exchange bring about immediate withdrawals, but also, that a fall in the London discount quotation will produce the same result; and, as it has already been shown that a fall of discount here is usually attended by a decline of the continental gold-exchanges, it would be only natural to suppose that the American rate is subject to the same conditions. As a matter of fact, the true explanation rests on entirely different reasoning.

The actual exchange between New York and London is the cable-transfer rate; but the rate that a New York banker bases his calculations upon, when deciding whether to order gold over, is that for 60-days sight paper, which is what he will remit in cover. Assuming the cost of shipping gold remains constant, three factors affect his calculation; namely, the price of gold in London, the price of a 60-day bill on London, and the rate of discount in London, and of these three the only one that admits of doubt is the latter, because although he knows what discount stands at to-day on the other side, he cannot be sure what it will stand at ten days hence, when his remittances are due there. As an uncertainty is what the banker dislikes above all things, he eliminates this element of doubt by "securing the rate," that is to say, by cabling his London correspondent to sell the bills "to arrive," deliverable, let us say, within a fortnight.

Let us now suppose that at $4.83\frac{3}{4}$ there is neither profit nor loss on moving gold, but that a fall of $\frac{1}{4}$ c. would just suffice to turn the scale—

The 60-day exchange in New York stands at 4.80	
and the London discount-company quote	
bills "to arrive" at, say, $3\frac{3}{4}\%$ (which is, of	
course, higher than the spot price)	$3\frac{3}{4}$ ¹
making the combined rate	$4.83\frac{3}{4}$

¹ It is worth noting why the loss of interest on a 60-day bill at $3\frac{3}{4}\%$ p. a. should be set down as just $3\frac{1}{4}$ cents. The method of calculation is a very rough-and-ready one, but is quite good enough for most purposes. It is simply this: if you add 3 days' grace and

so that, evidently, either a fall of the long exchange to $4.79\frac{3}{4}$ or a fall of the discount-charge to $3\frac{1}{2}\%$ will be enough to start the outflow.

It is obvious that, if the market can be made to follow the Bank, an upward movement of 1% in the official rate will be just as effectual in stopping an export to New York as though the exchange had suddenly risen a point. That the same measure also checks a drain to the Continent, by inducing bankers to buy up the over-supply of bills, we have already seen; and though in the case of shipments for special purposes a high bank-rate cannot prevent the execution of a positive order to send gold, yet that it acts as a deterrent in the giving of such orders is proved by the fact that shipments of this description are fewer in number when discount is dear than when it is cheap.

10 days' course of post to the term of a 60-day bill, you get 73 days, which is exactly the fifth part of a year, and interest for the fifth part of a year on 480 cents is very nearly the same thing as interest for a whole year on 100 cents. Of course, a year's interest at $3\frac{3}{4}\%$ on 100 cents is $3\frac{3}{4}$ cents, and so on.

XXI

THE MONEY-MARKET AND THE GOLD-EXCHANGES

(continued)

How a bill-broker is affected by a rise of bank-rate.—Shipments of gold for special purposes cannot be foreseen.—The normal condition of most of the exchanges is favourable to England.—Favourable exchanges do not necessarily bring gold.—Where our gold imports come from.

If regard be had to the circumstance that discount-brokers work almost entirely on borrowed capital, and that they employ the greater part of such loan-money in the discount of commercial paper, of which they are at all times large holders, the fact that a heavy export of gold should cause a flutter of excitement amongst them becomes quite intelligible without further explanation.

The effect from their point of view of a rise of bank-rate (if such should be the anticipated result of the outflow) amounts to this : that the cost of all the money they have borrowed at once increases, and that the value of the bills in which they have invested that money at once decreases. Assuming that a broker's bills, taking one with another, have a little over six weeks, or say the eighth part of a year, to run (which is a fair average), the decrease, on a 1% rise, will amount to $\frac{1}{8}\%$ on the total cash value of his bill-case. In other words, if he held a stock of £800,000

and were forced to realize, it would make a difference to him of £1000 whether he realized before the rate had gone up, or after.

If a broker, then, should have taken in bills at the beginning of the week, with the intention of "running" them, and should have to re-discount on the Friday or Saturday, after the bank-rate has gone up, he can only do so at a loss; and as the bankers who have to pay for the gold which is going out are sure to want back some of their call-money, the probabilities are that he will have to re-discount. There is every reason, therefore, why brokers and discount companies should keep a vigilant look-out for signs of an imminent outflow.

Unless they have special sources of information, they cannot, of course, possibly know that a banker in Buenos Ayres or Rio has ordered a shipment of sovereigns over for the purpose of speculating on the premium, or that the Russian Government has "called" some of its deposit-money and has asked to have it in gold. Withdrawals of this nature take the markets unawares, and must be classed among the risks to which the business is subject—all profit and no loss not being the rule in the discount-market any more than in other branches of trade. But when we come to withdrawals that result from the ordinary action of the exchanges, we are treading on firm ground. To know when such are drawing nigh, the broker has but to watch the course of rates, and if he is caught napping he has no one but himself to blame.

Naturally, therefore, when the French, or the

German, or the American exchange is almost *down* to gold-point, the broker has to be cautious how he buys bills, and doubly cautious how he “runs” them; and, as a matter of course, he takes in sail by raising his rate. On the other hand, if the exchanges are nearly *up* to gold-point he tries to secure as many bills as he can, and the market-rate falls.

In the matter of withdrawals there is no necessity to keep watch on all points of the compass. Owing to the enormous amount that has to be remitted to this country from every quarter of the globe in payment of interest on money lent, and in payment for our exports, it is an extremely rare occurrence that the balance of indebtedness should be so largely against us as to call for settlements in hard cash. The normal condition of all the exchanges, with the exception of those specified above, and of India, is favourable to England, and, as a rule, it is only when a country raises a new loan here, or succeeds in dumping a load of its home-made railway or other securities on the London market, that the exchange veers round in its favour.

A remarkable instance of this description occurred in 1889, when the Brazilian exchange stood at or above par during nearly the whole year; but this case was very exceptional.

Though it may be taken as certain that a loss of gold must always result from the fact of any exchange whatsoever turning against us to the extent of the cost of transmitting metal, it does not follow that the converse holds true, and that favourable exchanges must

necessarily bring gold. Some countries redeem their promise to pay in gold and some in silver; but the greater number refuse to redeem it at all.

*All nations of the Teutonic stock*¹ *pay in gold on demand*, and so also do France, Belgium and Switzerland; but Asia employs silver, and the rest of the world lies under the bane of inconvertible paper-money.

From only three capitals, in fact, can we expect to receive gold as a natural outcome of the exchange rising to specie-point; those three being Paris, Berlin and New York. The yellow metal also flows in from Australia² and the Cape, but in these cases it is sent, not altogether as money, but rather as a commodity, which goes to market like any other produce of their mines.

For exchange purposes, France, Belgium and Switzerland may be regarded as a unity, represented by Paris, while the Dutch, Scandinavian, Russian, and perhaps Austrian exchanges may be considered as controlled from Berlin: that is to say, if bills on London become proportionately cheaper in Amsterdam or Stockholm than in Berlin, Berlin buys them, and if they become dearer, Berlin sells them. New York, of course, stands for the whole of North America.

¹ The Teutonic stock is divided into two branches, the Gothic and the Scandinavian. Under the former are included Germany, Holland and the English-speaking peoples; under the latter, Norway, Sweden and Denmark.

² Until Australia had a mint of her own she sent us the raw material, gold dust, and we sent her the manufactured article, sovereigns; but now that she makes her own coin, the banks ship sovereigns when they have no other means of remitting, so that gold comes partly as a commodity and partly in balance of the exchanges.

XXII

THE POST-WAR MONEY MARKET

The currency-note issue.—How the amount of currency-notes in circulation is determined.—Government borrowings.—The floating debt.—The rise in prices.—The floating debt and inflation.—The war-time “pegging” of the exchanges.

THE following chapters deal with changes in the money-market since the year 1914, and are intended to show in what way the broad principles sketched in the preceding section of the book have become adapted to fit current circumstances. It is not intended to present an exhaustive history of the past ten years, and in particular the fascinating subject of war-time finance must be passed over in a rather perfunctory fashion. Little mention is to be made of the emergencies and dislocation ensuing upon the outbreak of hostilities, on the moratorium, the suspension of the Bank Act, and the first introduction of currency notes. For an account of these the reader is referred to works dealing with this subject.

Four war-time developments, however, deserve some comment, in order to show how present-day conditions have arisen.

(a) *The currency-note issue.*—Currency notes were issued first in 1914, to replace gold sovereigns and half-

sovereigns as legal tender in the hands of the public, and so to enable the nation's gold to be mobilised by the banks in case of emergency. As stated on their face, they are issued by the Lords Commissioners of the Treasury, and are legal tender for any amount. Unlike the Bank of England, however, the Currency Note Commissioners are not bound to, and in fact do not, hold one gold sovereign for every pound-note issued. Currency notes are supported in three different ways: (1) by gold and silver coin; (2) by Bank of England notes, which are exchangeable for gold, and (3) by Government Securities, whose worth depends on the national credit. The exact proportions are shown in the following table.

CURRENCY NOTE BALANCE SHEET,
23rd April, 1924.

	£	s.	d.		£	s.	d.
Notes outstanding ...	269,622,151	0	0	Currency Note Re-			
Certificates outstanding	21,110,000	0	0	demption Ac-			
Notes called in but not yet cancelled . . .	1,396,650	10	0	count . . .			
Investment Reserve Account	12,376,116	11	8	Bank of England			
				Notes,	22,450,000	0	0
				Gold coin and bullion	27,000,000	0	0
				Silver coin	7,000,000	0	0
				Government Securities	218,177,508	16	5
				Balance at the Bank of England	177,709	8	3
Total	£304,805,218	4	8		£304,805,218	4	8

According to this table, on 23rd April, 1924, the total of notes issued was £292,428,802 10s. These were backed (1) by £34,000,000 in coin; (2) by £22,450,000 in Bank of England notes, and by £177,709 8s. 3d. in deposits at the Bank of England, which can be withdrawn in gold or bank-notes

at will; and (3) by Government Securities amounting to £235,801,092. 1s. 9d. It is this last portion, amounting to 80% of the total issue, which is termed the fiduciary portion of the currency note issue—so called because it rests, not upon any tangible form of wealth such as gold or bank-notes, but only upon the nation's credit.

The next question is, How do these notes pass into the hands of the public, and what determines the total quantity in circulation? Unlike some nations, the British Government never financed itself by direct inflation of the currency. As is shown later, it indulged in certain forms of borrowing which gave the public power to obtain additional currency notes, and the public did avail itself of this power. But the number of currency notes in circulation has hitherto simply been the number that the public choose to demand from the banks. When a customer enters a branch-bank and presents a cheque drawn to self for five pounds, he receives five one-pound notes without demur. If the branch-bank finds itself running short of currency notes, it applies for more to its head-office. If the head-office in its turn runs short, it applies for more to the Currency Note Commissioners through the medium of the Bank of England, and in exchange for them hands over a block of Treasury Bills or other Government Securities. The important point is that it is simply the public demand that causes an expansion in the issue, and the additional Government Securities shown in the Currency Note account emanate not from the Treasury

but from the portfolio of the Joint-Stock Bank requiring the notes. The Government can create conditions which bring about an expansion or a contraction in the currency note issue. It cannot create or destroy directly the notes themselves.

If any proof is needed that the currency note circulation depends on the public requirements, it is only necessary to note the expansion that invariably takes place at Christmas, Easter and Whitsun. The fact that the number in circulation has steadily decreased since the war is simply evidence of a diminution in the public requirements. Should conditions arise which make the public demand more notes, it is doubtful if any limitation can be effective.

The currency note has replaced gold as the medium of circulation. The chief differences between it and gold are : (1) that there is no limit (apart from any of a legal or administrative character) to the number that can be printed; (2) that they are only legal tender in Great Britain and Ireland; (3) that they possess no intrinsic value, beyond that of printed paper; (4) they possess no "mint par of exchange," but can only be exchanged into foreign currencies at rates to be determined by mutual bargaining.

(b) *The financing of war expenditure.*—In order to meet the abnormal burden of expenditure necessitated by the war, the Government resorted to three different means of raising money. The first lay in increased taxation, and the second in the floating of the different war loans. Neither of these methods directly concerns

our present subject, namely, the post-war state of the money-market, though both, of course, exercised a very real effect at the time. But the Government also employed a third method, namely, that of increasing the floating debt, and here the effects still remain.

The floating debt before the war represented money lent by the market to the Government to fill any temporary excess of expenditure over revenue. As is well known, the bulk of the revenue is paid in the last quarter of the financial year, while money for Consolidated Fund and Supply Services has to be found all the year round, and so during the earlier part of the financial year the Government regularly had to borrow funds which were repaid at the end of the year. Borrowings took two forms, these being the sale of Treasury Bills (*i.e.* bills drawn on H.M. Treasury, payable three months, six months, or one year ahead) to the market, and borrowing on ways and means advances from the Bank of England. Reference to p. 124 will show that the balance-sheet of the Banking Department contains an entry, Government Securities. This represents the Bank's loan to the Government.

The war caused a huge increase in the floating debt, so much so that to a certain extent it shifted the centre of gravity of the money-market. For whereas on 1st August, 1914, only fifteen million pounds in Treasury Bills were outstanding, in September, 1921, the figure had risen to the prodigious height of 1159 millions. Even allowing for the simultaneous expansion in market resources, alluded to on the next page, this huge increase

in Treasury Bills enabled the Government to dominate the market. This introduced a disturbing influence, for the supply of bills no longer depended on the course of trade and of foreign exchange movements, but upon the needs of the Government. Since the war, the monetary policy of the Treasury has found ready expression in the number of bills they were prepared to offer each week and in the terms they were willing to accept. It is significant that in April, 1921, the reduction in the Treasury bill discount rate preceded and did not follow the fall in the bank-rate from 7 to 6%.

Borrowing on ways and means advances was the most direct form of inflation that was employed. The cycle was that the Government obtained a loan from the Bank of England; this created a deposit at the Bank to the credit of the Government (*i.e.* public deposits). The Government then drew cheques on this deposit to discharge its liabilities, and these cheques were paid in by the creditors of the Government to their accounts at the joint-stock banks. The joint-stock banks presented them to the Bank of England, and they were promptly credited to the joint-stock bank's account at the Bank of England. This caused an increase in "other deposits" at the Bank of England, and so in the joint-stock bank's cash resources; for, as stated on a previous page, a banker's balance at the Bank of England is considered equivalent to cash.

The effect of this was an enormous increase in the resources of the money-market and in the deposits and advances of British banks; for each Government

borrowing on ways and means was ultimately transformed into a corresponding increase in the "cash" held by the banks, and enabled them to expand their loans to the money-market and to traders without going beyond the limits imposed by ordinary banking prudence. This increase in bankers' loans automatically brought about an increase in the deposits held by the public at the banks, and this caused an increase in the total number of currency notes in circulation; for every pound deposited at the banks could be withdrawn in cash if the customer so desired, and so the greater the total deposits, the greater the demand for cash or currency.

(c) *The war-time rise in prices.*—Many explanations of the war-time rise in prices have been put forward, and in their time aroused much barren controversy. Without making any attempt to advocate any particular theory, one or two influences may be pointed out, but it should be borne in mind that it is extremely difficult to distinguish between cause and effect, and that the attempt to find a rigid solution to the problem of "what caused the rise in prices" is almost as hard as the old conundrum of "which came first, the hen or the egg?"

(1) The war gradually diverted the majority of the nation from productive to unproductive work. Large numbers were engaged in manufacturing shells and other munitions of war, only for another section of the nation to blow them into space. The task of returning the German armies to the place whence they came was a necessary one, but from the strict economic standpoint

those engaged in it were virtually performing unproductive work. Yet all our soldiers and munition-workers had to be fed and clothed. They all continued to be consumers, though they ceased to be producers. Thus, the demand for commodities was unabated, but the supply enormously diminished, and this inequality was expressed in the rise in prices.

(2) The Government wanted munitions urgently and in large quantities, and time did not always permit of adequate scrutiny of prices. Manufacturers were working day and night in fulfilling Government contracts, and labour was not always easy to obtain. Thus, apart from any definite "profiteering," the general atmosphere in industrial centres favoured the purchasing of goods without regard to price, provided that they could be delivered at once.

(3) It has already been shown that the increase in the floating debt caused a corresponding expansion first in bank "cash," and then in the amount bankers were prepared to lend. This placed additional spending power in the hands of the public, without a corresponding increase in the volume of commodities available for them to buy. Here was another cause of the rise in prices, an increase in the supply of money unaccompanied by an increase in goods in exchange for which it could be demanded. This phenomenon has never failed to cause a rise in prices, whether the increase in the supply of money is due to the discovery of a new gold-field or to causes such as have been enumerated above.

(d) *The "pegging" of the exchanges.*—During the war

the exchange rates between London and New York and our chief Allies hardly varied at all, if we except the first few weeks after the outbreak of hostilities. The most important and interesting example, and one that will repay some consideration, was the New York Exchange, and the history of its successful "pegging" is a useful illustration of some of the factors governing exchange movements. The war caused an enormous increase in our imports from America, for even before their entry into the war United States manufacturers made for us vast quantities of munitions, over and above America's normal exports of corn, cotton, oil, tobacco, &c. Conversely, our exports to America decreased, due to the diversion of the majority of the British nation to war-service of one kind or another. Hence, a heavy and continued depreciation in sterling would have seemed inevitable.

The Government did not adopt or advocate the usual pre-war corrective of gold shipments. Such a remedy, even if we had drained ourselves of gold, would have proved totally inadequate, and, in point of fact, the Government discouraged, though it did not actually prohibit, the export of gold. Nor could the Government fix the rate of exchange by law, for such a law, to be effective, would have had to be enforced, not only in London, but in every financial centre throughout the world. What the Government did do was to create a demand for sterling equivalent to the trade demand for dollars. The chief methods adopted were: (1) the mobilisation of American stocks held in Great Britain

and their sale to the United States; while not commandeering American securities, the Government went so far as to impose at one time a special rate of income tax upon dividends derived from them; (2) the raising of loans in the New York money-market; (3) after America had entered the war, direct borrowing from the United States Government; this was the origin of the American debt. All these methods provided us with sufficient dollars to pay for the munitions and other goods we obtained from America. It should be added that we took steps to discourage or prevent the import of unnecessary articles.

In April, 1919, these artificial forms of support were withdrawn, and sterling was left to find its own level. In less than a year it had fallen to \$3.20, and though it has subsequently recovered, it still stands below par. The mint par of exchange has, however, ceased to have any special significance, as in April, 1919, the British Government prohibited the export of gold.

Artificial measures had to be taken to peg the principal Allied exchanges as against sterling and the dollar. The principle adopted was the same as in the case of the London-New York rate, but the actual means by which sterling or dollars were obtained in adequate quantities necessarily varied.

XXIII

THE POST-WAR MONEY MARKET (*continued*)

The Cunliffe Committee's report.—Prohibition of gold exports.—The influence of the Treasury bill.—Bank-rate factors.—The American Exchange.—The trade cycle.—English and American policy.—Trade and exchanges before the war.

THE world's post-war trade history needs little recapitulation, with the exception of the limited field of the foreign exchange markets, which is dealt with in subsequent chapters. In the wider field of industry and finance we all witnessed the 1919-20 trade boom and the rise of prices to unheard-of heights. Then came the feeling of nervousness, which found expression in the sayings of those who had not been carried away by the flood of trade, and, in particular, in the Cunliffe Committee's final report, recommending, *inter alia*, the re-establishment at an early date of a free market in gold, the curtailment of Government borrowings on ways and means advances, and the gradual reduction of the fiduciary issue of currency notes; all measures designed to reduce the volume of cash and credit that had been built up during the war. Then came the crash; it was found that badly as the world needed goods, large sections were unable to pay for them when they became available, and we rapidly fell from the boom of 1920

to the slump of 1921. Our subsequent history has been one of slow but gradual recovery.

Some of the chief changes in the money-market that have taken place since 1914 can now be enumerated.

(1) The prohibition of gold exports, except under licence. Gold is still exported, but in practically every case shipments consist of gold imported from South Africa, and the reserve held at the Bank of England remains intact. Imports or exports of gold have ceased to affect the basis of credit, and gold itself can now be largely regarded as a commodity. Even the price now varies from day to day; and an ounce of standard gold is now worth more than £3 17s. 10½*d.*, while the melting-down of gold sovereigns, though now profitable, has become a penal offence. In particular, the gold points have ceased to exist, and there is now no limit to the movements of exchange rates.

(2) The reduction in the number of commercial bills. This is due (*a*) to the general decline in trade; and (*b*) to a tendency of many firms to transact business on "open account" rather than by drawing on their customers.

(3) A reduction in the number of purely finance bills coming forward.

(4) The presence in the money-market of some of the working capital of industry, which has been rendered idle by the slump in trade.

(5) The great importance of the Treasury bill.

The Bank of England can still control the money-market by raising or lowering its minimum discount rate; the only difference here is that bankers' deposit

rates are now 2 instead of $1\frac{1}{2}$ points below bank-rate. This control, however, is now shared with the Government, as the latter can always increase or diminish at will the number of Treasury bills they wish to offer. Two years ago, the outstanding volume of Treasury bills was undergoing a steady diminution, and was being replaced by short-term Government stock termed Treasury Bonds. The result was that at that date the number of bills in the market was steadily diminishing, and discount rates were forced to an extremely low point; for there was an excess of funds seeking employment. In the following year, this policy ceased, and when the Bank of England raised their discount rate in July, 1923, the market was able to respond.

Now that such gold exports as are permitted have ceased to affect the money-market, it is of interest to see what considerations guide the Bank of England in their policy. There are two chief factors that govern bank-rate now, the one external, the other internal. The first is the rate of interest in New York and the rate of exchange current between London and that centre. The American exchange is now the most important of all rates, because (1) The dollar is the most important currency still on a gold basis; (2) London cannot become a free gold-market until sterling has returned to parity with the dollar; (3) the American rate is the most important rate still adverse to Great Britain; (4) we depend on America for some of our chief raw materials, *e.g.* cotton, oil, corn; (5) we have to find dollars in order to discharge the interest and sinking fund on our debt

to America. Whereas, before the war, the American exchange was only one of several that we had to watch, it now stands by itself, and a rise in money rates in New York will sooner or later lead to a similar movement in London.

The second factor is that indefinable function known as the state of trade. Briefly this may be described as follows, but the points touched on are regarded by many as highly controversial.

Trade is never at a constant pitch of activity. Periods of prosperity are succeeded by periods of depression, which in turn are followed by a recovery. The chief signs of activity are a rising tendency in commodity prices, a decline in unemployment, an expansion in our foreign trade, big profits in industry, fresh industrial share issues, and increased demand by manufacturers for accommodation from their bankers. All these symptoms become more and more manifest, till at length it becomes necessary to call a halt. The consumer refuses to pay high prices, the banker is unable to make fresh advances, and then the producer finds that he has over-estimated the demand for the commodity which he supplies, and that he has heavy stocks left upon his hands. Then comes a slump, and all the symptoms are reversed. Prices fall, unemployment increases, the banker tries to call in his loans, and the investing public fights shy of industrial issues and turns its attention to gilt-edged stock. After a time, confidence begins to creep back. Prices have fallen to a point where the consumer is once more tempted to buy, the banker finds

he can extend fresh accommodation, and gilt-edged stocks rise to a point where they cease to attract the investor. Then the recovery begins.

This, briefly, is the much-debated theory of the trade cycle, but one component in it has been omitted—namely, the rise and fall in the rate of interest. At first sight it would be said that active trade would engender high rates of interest, for active trade means greater pressure for loans, and more bills coming forward for discount. But a prudent banker can do more than this. By raising his interest rate, he can check an expansion in trade, by making loans more expensive; and if he looks ahead, he will raise his rate before an incipient boom in trade has grown to be of unhealthy dimensions. By anticipating a boom he can mitigate the severity of the subsequent crash.

A prominent example of this was found in America in the spring of 1923. In March of that year there were all the symptoms of an approaching boom, but American bankers remembered the slump of 1921, and raised their rates in April, before the boom had reached the limit of danger. The Bank of England have been criticised for maintaining their rate at 7% in 1921 long after the need for it had passed, and it has been urged that by their action they delayed the recovery from the slump of that year. A truer criticism is possibly that they were late in raising their rate, that if a 7% rate had been declared in the autumn of 1919, much of the suffering of 1921 would have been avoided. But this must be left for the historian to decide.

As previously stated, the increase in the bank-rate from 3% to 4%, in July, 1923, was a reflection of the rise in American rates made in the previous April. There was no unhealthy boom in English trade in that summer. There was, however, a dangerous speculative position growing up on the Stock Exchange, and the increase in bank-rate did serve to nip that in the bud. Unfortunately the increase did not prevent a serious fall in sterling, as against the dollar, in the succeeding autumn. Other forces were at work which out-weighed the effect of a higher bank-rate. The Bank of England can no longer exercise that control over foreign exchange rates that they did before the war.

It must not be supposed that in pre-war days the Bank of England's policy was governed solely by exchange movements and gold shipments, and not by the state of internal trade. Adverse exchanges and active trade often went together, because when British prices rose above the world level—as they did in times of activity—imported goods appeared relatively cheap to the Englishman and home-produced goods relatively dear to the foreigner. Hence, active trade and high prices tended to produce an unfavourable trade balance, and so moved the exchanges against us. Then the Bank of England would step in, and by raising their rate, check trade at home and turn the exchanges in our favour abroad. Another factor that served to check trade was that our adverse trade balance would cause gold shipments. Gold would thus be drawn from the Bank's reserve and restrict the power of Lombard Street to

grant loans to manufacturers. Our financial system was, and still is, a delicate piece of machinery, every section of which played its part. The war has minimised some portions of the machine, and has brought others into greater prominence; it has destroyed some indications, and has magnified others; but the machine still remains.

To quote but one example, gold shipments, in the ordinary sense, have ceased, and no longer afford an indication of how the machine is working. Instead, we must watch the course of the New York Exchange, and the rise and fall of trade, employment and prices.

XXIV

THE PAPER EXCHANGES

Paper-money is in almost universal use.—Even if inconvertible, can be kept from depreciation if proper precautions are taken.—Cannot be exported.—Gold is dealt in like ordinary merchandise, and usually stands at a premium.—The essential conditions of a sound system of paper-currency are elasticity and self-adjustment.—Inconvertible paper fulfils neither condition.—An over-issue may be accidental;—But is usually wilful.—Inflation and its result.—A pre-war instance.

PAPER-MONEY, as a convenient and economical substitute for metal, finds favour in every part of the world to a greater or less extent, its use (not abuse) being at once a result and a test of the progress of civilization; and wherever it exists in such denominations as are adapted to the requirements of the people—wherever, that is to say, the unit does not exceed the amount that the average wage-earner can afford to carry about in his pocket—experience shows that it is generally preferred to coin.

That a note which may at any time be exchanged into cash at the will of the holder can never be of less value than the cash itself is perfectly plain; but that a note which is not exchangeable into cash, and of which the promise to pay on demand is only an empty form, should also be capable of being kept at par is not so obvious. It is quite possible, however, if proper

precautions be taken: for so long as a country can manage to pay in produce for what it buys and borrows, without having to export hard cash; so long as the issue is proportionate to wealth, trade, and population, without being redundant; and so long as the issuing Government is believed to be acting in good faith (or is not being forced by an emergency to over-issue) and keeping up a reasonable reserve of gold—there is no reason why an inconvertible note should not possess the same purchasing power and pass as freely from hand to hand at home as coin would. But it is of no use abroad. The foreigner has to be paid in a medium that he can use in his own country; and, consequently, if there should be an unfavourable balance of indebtedness, which has to be remitted in cash, the specie for that purpose will have to be purchased in the market, inasmuch as it cannot be obtained by encashing the note. Gold, under these circumstances, is dealt in like ordinary merchandise, and as those who made it their business to buy and sell the precious metals expect to earn the ordinary rate of profit on their capital, it stands at a constant premium.¹ There is no great harm

¹ In the early days of the war, Germany was exporting large quantities of gold to Sweden in payment for goods. The Swedish Government tried to maintain the purchasing power of the krona, with the result that for a time the krona note stood at a premium over gold! This position did not last for long, and prices began to rise in Sweden, when the anomaly ceased.

Travellers may remember that before the war the five-pound note often commanded a better rate of exchange on the Continent than did five gold sovereigns. The explanation was that the five-pound note could be remitted more cheaply to London.

in that, however, and while hardly any one feels so small a loss, the Government may benefit greatly by the issue.

The curse of inconvertible paper is over-issue.

It is essential to a sound system of paper currency that it be elastic and self-regulating. It must automatically increase and decrease with the amount of work it has to perform. Cheques and bills form the principal currency of this country; and on reference to the Clearing House returns it will be seen that, at those seasons and on those particular days when business is brisk, the quantity in circulation rises, and, when business is dull, falls.¹ They multiply exactly in the ratio that transactions multiply. A cheque is created to do certain work, and, as soon as the work is done, it dies. So it is with convertible notes. Every quarter-day sees an increase in the circulation of the Bank of England, because many payments are then effected by note; but immediately the notes have performed their task they drift back into the banks, the banks pay them in to their credit at the Bank of England, and they are cancelled.

But a currency of inconvertible paper is not automatic. It possesses no elasticity—no power of self-adjustment—whatsoever. Once issued it never returns to the issuer, nor ever dies, and every increase of its volume is an increase for good and all. Let a Government, then, issue up to what the country can readily

¹ The same applies to the minor fluctuations in the currency note circulation.

absorb (that is to say, up to the average total of coin and *convertible* paper that it could keep in circulation), and it matters little whether the note be convertible or not; but let it once overstep the saturation-point, and the whole mass begins to depreciate.¹

Over-issue may not necessarily be intentional; it may sometimes be accidental. In countries where the system of payment by cheque is unknown, the amount of currency required for use varies according to the state of trade, and the wisest of Finance Ministers is liable to be misled by an unwonted expansion; for whenever business is good there is sure to be an urgent demand for "more currency," and it is natural to argue that the growing prosperity of the country ought not to be held in check for the want of instruments of exchange. If he accedes, and increases the issue, the consequence will be that, when trade contracts again, the currency will be redundant, because, instead of also contracting, as it ought, it remains stationary.

In too many cases, however, the over-issue is wilful.

¹ Depreciation, it may be well to explain, does not mean that people run about offering to sell a dollar-note at half-price, or that they reckon it at only so many cents in buying and selling. The paper dollar, whatever it may actually be worth, is always called a dollar; and when we say that it has depreciated we mean that its purchasing power has fallen as compared with that of gold, or, in other words, that prices expressed in paper have all risen. To measure the extent of the depreciation observe the market price of gold; thus, if 100 gold dollars cost 200 paper dollars, gold reckoned in paper is at 100% premium, and paper reckoned in gold is at 50% discount. A better indication is now given by the course of wholesale price index numbers.

It is obvious that if a Government, after having declared that the notes already in circulation should henceforth be inconvertible, insisted on paying out no more for supplies and salaries, &c., than came in from the taxes, depreciation would hardly be possible; but, on the contrary, it always begins sooner or later to pay out infinitely more than comes in. Inconvertible paper is simply a *forced internal loan*; and there is something so fascinating in the idea of borrowing money without having to pay interest for it, and without having to repay the principal until it is quite convenient, as to prove absolutely irresistible. More money would provide the army with new guns, the navy with new ships, the president with a new palace, the deputies with higher salaries; it would give a fillip to trade, create plenty of work, and check disaffection. As more money can be had by simply turning a handle, the temptation at last becomes too great; ministers swallow their scruples, the printing-press is set going, new notes pour out in a daily-increasing flood, and the Government expenditure goes up by leaps and bounds.

Or sometimes the issue is managed by a State Bank, which is empowered to create notes up to, say, three times the amount of the specie held. For every dollar's-worth of gold that it imports from London it can make three dollars in paper. Therefore, by simple rule of three, it if can employ the three fictitious dollars at 10%, it will earn 30% on its one real dollar. There is thus a powerful inducement to lend, and speculators

are not slow to take advantage of the opportunity offered them. Money is borrowed for all sorts of purposes, and on all sorts of security; and a period of inflation sets in. Lands, houses, stocks, produce—all things, in fact, that look cheap—are bought for the rise; and prices—paper-prices—go up hand over hand. Gold being simply an article of merchandise, the paper price of gold goes up too, and with it the *price of bills on London*, which are payable in gold.

At first, people are too busily engaged in buying to sell again to trouble much about the gold-premium, but the question soon forces itself upon their attention. A month ago it stood, say, at 70; yesterday at 95; to-day it is over 100, and very firm. Almost imperceptibly a vague sense of impending danger begins to overspread the market, and rapidly develops into that stand-from-under feeling which foreshadows a crisis. The scales fall from people's eyes. They now perceive that values have not really been rising, as they imagined, but that paper has been falling. Then the bubble bursts; and inflation is at an end.

But the mischief is not at an end. The vast over-issue, the entire mass of which is depreciated, can only be remedied by the wholesale cancellation of notes, and this it may take years of stringent economy to effect. It is well then for the country if the worst is known, and if the statutory gold-reserve has been preserved intact; but that such is not always the case is shown by the following extract from a *Times* telegram, dated 11th November, 1891 :—

“The original amount of State paper in Brazil was 180,000 contos of reis, which stood at par, that is to say, the milreis was worth 27*d.* At present the milreis is only worth 13*d.*, which means for the country a loss of more than 50%. By the law the bank had to have one-third of the value of its notes in gold deposits, but that gold was carried away from the bank by Minister Barbosa. This fact, though denied at the time, has been publicly declared to be true by the present Minister of Finance, Baron Lucena, before the Committee of the Chamber of Deputies. He not only confirmed the fact of the withdrawal of the gold from the bank, but stated that the Government possessed only 27,000 contos as a guarantee of a paper issue of 520,000 contos.”

XXV

THE PAPER EXCHANGES—(*continued*)

The ordinary theory of fluctuations appears to need modification in the case of paper exchanges.—The simplest plan is to regard every rise or fall as due to a change in the demand and supply of the national currency.—What governs the value of the paper-unit.—Depreciation has no limit.—The effect of depreciation on trade.—The evil consists not in the extent of the depreciation, but in the violence of the fluctuations.—The classes that suffer most from it.—An unfavourable exchange tends to work its own cure.

WHEN once the depreciation of an inconvertible paper currency becomes an accomplished fact, some of the fundamental propositions on which the theory of the exchanges is built up will appear to call for reconsideration. How, for instance, are we now to reconcile our conception of a par of exchange, or of a standard of value, with the new state of affairs; and if we are at fault in our elementary definitions, what becomes of the superstructure which we have based upon them? True, there is still the nominal metallic par to refer to; but, except that it serves as a sort of standard by which to measure the extent of the debasement, it might for all practical purposes just as well be non-existent: and to tell the student, as could be done when this book first appeared, that the specie par with the Argentine is about 48*d.*, but that the rate

fluctuates at present between 12*d.* and 13*d.*, is merely to add to his perplexity.

The best and simplest way, in fact, of approaching the study of a paper-rate is to dismiss from the mind all preconceived notions as to *pars* and specie-points, or as to the nature and causes of normal fluctuations, and to seek the explanation of every rise or fall in some change in the demand and supply of the *national currency*. In reality, of course, every factor that affects a gold exchange also affects a paper exchange; but the influence of these extrinsic agencies is so confusedly mingled with that of an increase or decrease of the note-issue, that it is impossible to disentangle them. Thus, supposing the Government enters the market as a buyer of bills on London for a million sterling to meet interest-payments, and that it pays for them with part of a fresh issue of \$20,000,000 currency: if the exchange suffers from the operation, as it is sure to do, how are we to discriminate between the effects of the two distinct causes? In other words, how is it possible to distinguish between the *real* advance in the price of London paper, owing to greater demand, and the *apparent* advance, owing to a fall in value (due to increased supply) of the medium in which the bills are paid for? Obviously, we shall see our way much clearer if we regard every fluctuation of the exchange as being the result of a readjustment in the value of the paper-unit, and as nothing more.

The value of the paper-unit, which we now fall back upon, is dependent upon the quantity that has been

forced into circulation, as compared, firstly, with the demand that exists for currency, and secondly, with the amount of metallic reserve upon which it is based. If trade improves, or the harvest is large, the gold-premium and the exchange improve, because more notes are required for actual use, so that some of the dead-weight is lifted off the market: and also because the country is enabled to pay what it owes abroad in produce instead of sending gold. A new loan successfully raised abroad has the same effect, because it brings gold. On the other hand, unfavourable political or financial rumours, such as those of foreign war, internal commotion, bad harvests, commercial convulsions, &c.—anything, in short, that points to the probability of the Government having to spend more money—send up the gold-premium, because increased expenditure means further issues to make payments at home, and probably an export of gold to make payments abroad. To put the matter in a nutshell, paper-money is a promise to pay; and as it derives its value from the hope that some day the Government will be in a position to redeem the promise, whatever tends to postpone that day diminishes its value.

Depreciation, it is to be observed, always progresses far more rapidly in its later stages than it did at the beginning; for the lower the value of the note the more the Government must issue to pay for supplies, and the greater the issue the greater the fall. Nor has it any limit. Until the note descends to the value of waste-paper, we can never be certain that it has touched bottom.

On the trade of the country, depreciation (and an unfavourable exchange, generally) has much the same effect as a protective duty. It stimulates exports, but checks imports. If the exporter in Brazil sells coffee here when the exchange is at 24 pence, his bill on London for £1000 will produce him 10,000 milreis; but if the exchange falls to 12 pence, as it did between November 1890 and November 1891, the same coffee will fetch 20,000 milreis, so that unless he is paying double wages and double rent, he makes enormous profit. Hence, depreciation is always highly popular with the farming and mining interests (who have little to spend on materials, &c., imported from abroad, and whose chief outgoings are rent and labour), and they hail every fresh decline in the value of the currency as so much more money in their pocket. As to the importer, he has to raise his prices as fast as the exchange falls, because the lower the value of the note the more he must pay for his remittance on London. So great, indeed, is the risk of loss in the import-trade, that many merchants suspend operations in this branch altogether, for fear of being ruined. They are afraid to buy on credit from England, because it is impossible to know how many dollars they may have to pay for a pound when the time comes for payment: and they are afraid to sell on credit at home, because it is impossible to know what the dollar may be worth by the time their customers settle up with them.¹ The evil, it is seen, consists not in the extent of the depreciation, but in the

¹ But see Chapter XIII.

fluctuations of the exchange, and the oscillations to and fro in the value of property. Whether the exchange be high or low makes no matter, provided it will only keep so; but when that which ought to be the firm base of commercial transactions is tottering and unsteady, neither debtor nor creditor can feel sure as to the value of the payment which will ultimately pass between them, and trade becomes a mere gamble.

The chief sufferers by depreciation are, firstly, those who sold on long credit or granted long loans before the currency began to fall in value, or during the course of its fall, and secondly, the hewers of wood and drawers of water of the nation, who have to pay greatly enhanced prices for many of the necessaries of life, while their wages are little, if at all, higher. The misery thus engendered among the peasantry and the minor salaried officials is a constant source of danger to the Government, and not infrequently ends in revolution.

The last point to be noticed is that an unfavourable exchange tends to work its own cure: for under its influence the country naturally buys less and sells more, which is precisely what is needed to place its finances on a sounder footing. Strange as it may seem, a recovery in value of the currency appears to occasion more distress than attended the depreciation. While inflation was in progress, prices rose and all debtors were relieved of part of their obligations; but appreciation adds to the burden of the debtor, and also imposes the formidable consequence of successive depreciations of all property arising from progressively falling prices.

XXVI

POST-WAR PAPER EXCHANGES

Two broad distinctions.—Absence of gold points.—The measurement of depreciation.—Index numbers, their construction, function and limitations.—Comparison of two depreciated currencies.—Purchasing power parity.

THE preceding chapters dealt with the case where one country allowed its currency to depreciate, and showed how gold rose to a premium, and with it the exchange rates with those countries who maintained their currencies upon a gold basis. It now remains to consider the post-war position, when the majority of countries have been forced to admit the charge of having depreciated their currencies, while those who still conform to the gold standard are few and far between.

Two broad distinctions must be made between this and the following chapters and those that have gone before. The first is that we must now consider the factors governing the rate of exchange between two countries, *both* of which have allowed their currencies to depreciate to a varying degree. The other is that, unlike pre-war days, gold has now declined in purchasing power, and the gold dollar, to quote the outstanding example of a currency still upon a gold basis, fluctuates in its purchasing power within fairly wide limits.

The first point to be noticed is that there are no gold

points, no limits beyond which an exchange rate cannot move. This follows automatically from the prohibition which most countries have imposed upon the export of gold. It is true that we still ship gold to the United States under licence, but the time at which shipments are made and the total quantity so shipped bear little relation to the course of the New York Exchange, still less do they exercise any direct control. In short, gold has now become a commodity and must be regarded as such.

The American Government have never prohibited the export of gold, so here one gold point does still exist in theory. But as practically every exchange rate has stood for several years far beyond the *other* gold point, this limitation is of little practical importance. Still, in 1920, when the New York-Buenos Ayres rate was in favour of the Argentine, the Americans did ship gold, and so brought the exchange back to par.

In the vast majority of cases we are thus left with no starting-point, such as was provided by the mint pars, from which to form an opinion as to the extent of a depreciation or the reasons why an exchange rate has moved against a certain country, and we are left groping in the dark for a new means of measurement. And it must be admitted without delay that no satisfactory solution to the problem can be found. We can point to this reason for the fall in sterling, or to that reason for the fall in the mark, but we cannot say with any definiteness at what rate the pound, the franc, or the mark ought to be quoted, we cannot tell what is the true rate between

one and the other. We can only make a very rough and incomplete guess at the answer to the question.

To do this, we first consider each country by itself, and attempt to form some idea of the extent to which its currency has been depreciated, to what length the over-issue of notes, the creation of redundant bank credit has proceeded. In our investigations we take no account of the reasons for such over-issue. It may be due, as in the case of Germany, to a deliberate neglect to balance the Budget. It may be due, as in the case of France, to the necessity of putting into operation vast and expensive schemes of Government reconstruction, the money for which should have been found by another nation. It may be due, as was suggested in England in the autumn of 1923, to a deliberate inflation of the currency with a view to stimulating trade. The result is in each case the same, and it is the measurement of the result with which we are concerned.

The best way of measuring this depreciation is to pass over the actual expansion in currency, credit, &c., and to concentrate upon the fall in the purchasing power of the currency in question. We want the answer to the question, "How many pounds (or dollars, francs, &c.) are needed now to purchase the same quantity of goods as £100 would purchase in 1913?" To solve this problem we employ an instrument devised by statisticians many years ago, and called an "index number." An index number possesses two essential qualities. It is an average and a relative function. It is no use measuring the fall in the purchasing power of the pound

by saying that cotton has risen in price since 1913 by 150%, because some one will retaliate by showing that rubber has simultaneously fallen by 60%, and will proceed to enquire whether the purchasing power of the pound has increased or declined. Again, the absolute price of cotton or rubber in pounds, shillings and pence is of no use to us; for we want to know the *change* in the purchasing power of the pound since a given date. The simplest way of constructing an index number is this :—Draw up a representative list of all the important commodities entering into the life of the nation. Enter opposite each one its price in 1913 (the base-year) and its price at the present day. Then equate the 1913 price to 100, and calculate the percentage corresponding to the present day. Finally, strike an average of these last percentages, and this is the index number—

	1913 price.	April, 1924, price.	Percentages.	
			1913.	April, 1924.
Wheat (per qr.)	36s. 10d.	47s. 10d.	100	130
Beef (per stone)	3s. 5d.	4s. 10d.	100	142
Butter (per cwt.) ...	127s.	170s.	100	134
Cotton (per lb.)	7·01d.	18·07d.	100	258
Wool Tops (per lb.)...	17½d.	28½d.	100	160
Pig Iron (per ton) ...	58s.	93s. 9d.	100	162
Copper (per ton)	£68	£64 12s.	100	95
Coal (per ton)	12s. 6d.	31s.	100	248
Rubber (per lb.)	36½d.	12½d.	100	● 34
Timber (per std.).....	£15	£30	100	200
			Total	1563

1563 ÷ 10 = 156·3, which is the index number.

This is a brief explanation of what an index number is. The subject has been explored by many investigators, and many points, some of them controversial, have been raised.¹ In general, it may be said that an index number is never mathematically correct as a measuring instrument, that it is impossible to determine accurately the extent to which a currency has declined in purchasing power. Moreover, the more a currency has depreciated, the less accurate does the index number become. The reason for both these statements can be appreciated from an examination of the percentages in the fifth column of the table. In the example given they are not identical, and the more the currency depreciates, the greater will be the differences between them. Hence the omission of one and the inclusion of another will exercise a greater effect upon the index number, which is their average. This difficulty can be partially overcome by extending the list so as to include the highest possible number of commodities,² but in the long run the index number depends for its accuracy on the judgment

¹ For further information, see :—

Journal, Royal Statistical Society, March, 1921; Flux, "The Measurement of Price Changes."

Journal, Royal Statistical Society, March, 1924; Crump, "The Inter-relation and Distribution of Prices, and their Incidence upon the Problem of Price Stabilisation."

Irving Fisher, "The Making of Index Numbers." Publishers, Houghton Mifflin Company, Boston and New York, U.S.A.

Also the *Board of Trade Journal*, *Economist*, *Statist*, *Times*, and *Financial Times*, all of which publish wholesale price index numbers at regular intervals.

² The British Board of Trade index number employs 150 commodities, and the American Bureau of Labour index numbers no less than 404. Before the war, 40 or 50 was considered sufficient.

of its compiler when drawing up his list of commodities, and the care and accuracy with which he collects his prices.

Admitting that complete accuracy is unattainable, what is it that the index number tells us? In the case given above it tells us that between 1913 and April, 1924, prices on the average rose by 56·3%, or that the pound sterling has depreciated in purchasing power to $100 \times \frac{100}{156\cdot3} \%$, or to 64% of its 1913 value—or that it takes £156·3 to purchase the same volume of goods as £100 would purchase in 1913. In other words, it gives us a more or less accurate indication of the depreciation of the pound.

We have thus, within a certain degree of accuracy, determined a standard by which to measure the value of a given currency, expressed in its commodity purchasing power. The next step is to compare the purchasing power of one currency against the purchasing power of another, and it is that that led Professor Gustav Cassel to enunciate his theory of “purchasing power parity.” This theory is briefly as follows:—In 1913, £1 was equivalent to \$4·866. Since 1913, English prices have risen by, say, 56% (from 100 to 156). Simultaneously, American prices have risen by, say, 48% (from 100 to 148). So we use the following equations to find out how many post-war dollars are the equivalent in purchasing power of one post-war pound.

- 1 pre-war pound = 4·866 pre-war dollars.
- 156 post-war pounds = 100 pre-war pounds.
- 148 post-war dollars = 100 pre-war dollars.

Or, by the chain rule :—

? post-war dollars = 1 post-war pound.

156 post-war pounds = 100 pre-war pounds.

1 pre-war pound = 4.866 pre-war dollars.

100 pre-war dollars = 148 post-war dollars.

∴ $\frac{100 \times 4.866 \times 148}{156 \times 1 \times 100}$ post-war dollars = 1 post-war pound,
 or \$4.616 (post-war) = £1 (post-war).

This rate, \$4.616 = £1, is defined as the purchasing power parity between the pound and the dollar for the month to which the index numbers relate. It is not a constant rate, as it depends upon the magnitude of the two index numbers, which, of course, varies from time to time. It is not a real rate, in the sense of the old mint par of exchange, and it cannot be calculated accurately, for an index number is not an absolutely correct measurement. But the advocates of the theory do urge that it should be substituted for the mint par, and that the appreciation or depreciation of an exchange rate should be measured now from the purchasing power parity, and not from the mint par of exchange.

To those engaged in buying or selling foreign bills, this may appear pure theory. Nevertheless, there is something in it. First of all, foreign exchanges exercise a very real influence upon the internal prices of imported commodities. If American cotton is selling at 20 cts. per lb., and the New York Exchange stands at \$4.5, the corresponding sterling price of cotton is 10.67*d.* per lb.

If the rate now falls to \$4.0, the corresponding sterling price is 12*d.* per lb. The price has risen in proportion as the rate has fallen. The converse proposition that exchange rates are influenced by prices is not so easy to see, but is, however, capable of proof. Supposing British prices rise, while American prices and the exchange remain steady. American goods will then be cheaper than English goods, and this difference in price will stimulate imports of American goods into Great Britain, while it will check the export of British goods to the States. The balance of trade will move against England and in favour of America, and the London-New York Exchange will automatically follow suit. In time, the exchange will move to the new purchasing power parity, American goods will be as dear as English goods, and the balance of trade will be restored. This point was touched on in Chapter XXIII, where it was shown that the relation between prices and exchanges existed below the surface in pre-war days.

XXVII

POST-WAR PAPER EXCHANGES

(*continued*)

Limitations of purchasing power parity theory.—Import and export prices.—Difficulties attending foreign trade.—A depreciating and a depreciated currency.—Political influences.—Restrictions upon trade.—When the theory operates best.

THIS is the theory, that if the purchasing power parity be substituted for the mint par of exchange, it should be possible to measure the real extent of the rise and fall of exchange rates, and to ascribe such divergences to familiar causes. The theory, however, can never be complete, but must always be subject to many qualifications. Mr. Walter Leaf, the Chairman of Westminster Bank, Ltd., speaking on currency questions at Manchester in December, 1922, compared the theory to the Persian poet Hafiz' definition of the passion of love. "It seems a simple thing at first; but troubles befall." For the theory to succeed in practice, certain conditions must be fulfilled, and in some cases their fulfilment is almost impossible.

(1) The index numbers employed in the calculation must embrace all commodities entering into the industrial life of each country. To limit them to those commodities entering into the trade between the two countries is simply to prove an identity, for the price of any com-

modity in the importing country is governed by the price in the exporting country and by the exchange rate.

(2) The theory is disturbed by the fact that an index number is only an average, and that some commodities have risen in price more than others. To quote a familiar example, since 1913 the average rise in price of goods imported into Great Britain is around 50%, while the average rise in price of goods exported by Great Britain is about 90%. Hence, our imports can exceed our exports in volume without moving the actual balance of trade against us. In France and Germany the converse has been the case, and imports have been relatively dearer than exports. The result is that to pay for their imports, these countries have had to export a larger quantity of goods, with the paradoxical result that while other nations have complained of the "dumping" of German goods, the balance of trade has in reality been against Germany.

(3) The violent movements of exchange rates have impeded trade, and prevented goods from finding their true level of price in every country. Speaking at a meeting of the Royal Statistical Society on 19th April, 1921, Mr. A. W. Flux, Joint Honorary Secretary to the Society, said, "The doctrine of purchasing power parities was by no means the clear guide through all the mazes that it would be in normal active trade conditions—conditions in which it would not be necessary to seek a new guide through the mists of foreign exchanges."

(4) The majority of commodities employed in the compilation of index numbers are primary food-stuffs and

raw materials. Foreign trade, however, comprises not only these commodities but also manufactured articles, and the cost of a manufactured article depends not only on that of the raw materials from which it is made, but also on the wages and other costs incurred in its manufacture. Now when a currency is depreciating, and prices are rising, some prices always lag behind others. Wholesale prices rise first, then follow the retail prices of the same commodities (for they take an appreciable time to pass from the wholesale trade, first to the retail trade and finally to the consumer), while wages rise last of all. Again, it takes an appreciable time for raw materials to be worked up into finished goods; for example, the selling price of a suit of clothes at a given date may be based on the cost of raw wool bought two or three months before. The result is that, so long as a currency continues to depreciate, the goods exported by that country appear cheap when priced in a more stable currency; for the raw material from which they are made was bought at a previous date when the currency had not reached its present state of depreciation, while wages have not been able to catch up the depreciation of the currency. In other words, though prices, wages and costs generally rise equally with the values of foreign currencies, they tend to be on a parity not with the exchange-rates of the day, but with those current several weeks or months before.

This is the explanation of so-called "exchange dumping"—that the goods sold to England by Germany at the time when the mark stood at, say, 10,000 to the

pound were made from raw materials imported at the time when the rate was, say, 7,500 marks to the pound, while wage rates only correspond to an exchange of 8,000 marks to the pound. If a currency can be stabilized, costs and wages have a chance to catch up, and the purchasing power parity theory once more becomes operative. But while the currency is depreciating, the exchange rate will always be worse than the purchasing power parity—in the case quoted, the mark would be quoted at 10,000, while, owing to the lag in German internal prices, the purchasing power parity would only be, say, 8,000. If the mark could be stabilized at 10,000, the purchasing power parity would eventually rise to that point.

(5) Another disturbing factor lies in political influences. Once the people of a country are firmly convinced that their currency is collapsing, they go to any length to exchange their notes either into goods or into stable foreign currencies. If they adopt the first course, they force up internal prices, and so the purchasing power parity, but if they adopt the second they force up exchange rates at once, and only influence the purchasing power parity indirectly through the consequent rise in the price of imported goods. And unless the two operations go on side by side, a further cause for divergence arises.

(6) A final factor that interferes with the free operation of the theory lies in artificial restrictions upon trade. We have already seen that while a currency is depreciating, internal prices lag in their rise behind the advance

in foreign currencies, with the result that the actual exchange-rate is always at a discount in comparison with the purchasing power parity; and we have seen that this stimulates the export, while it hinders the import trade of the country concerned. Theoretically, this is as it should be; for the result of this apparent anomaly is that, while it lasts, the country is exporting more goods than it is importing, and so gains a favourable balance of trade to help it bring the quoted exchange-rates back into conformity with the purchasing power parity, when, it should be added, the anomaly disappears. In practice, however, it has been found by experience that a very large and prolonged favourable balance of trade is required to rectify anything but a small margin, as the downward pull exerted by an unsound internal financial policy exercises an influence far more potent than that provided by the ebb and flow of trade. Consequently, the way this anomaly finds expression is in a flow of cheap goods, of all descriptions, from the country whose currency is depreciating, and this has such an effect upon the industries of neighbouring countries that it is thought necessary to erect tariff walls by way of protection. Part 2 of the Safeguarding of Industries Act and similar legislation in other countries are examples of how protection was afforded against German competition fostered by the fall in the mark.

It is not the reviser's intention to add more to the volume of argument on the merits of the fiscal question. It may, however, be said that advocates of free trade can point out that by restricting imports of German goods

the British Government tended to widen rather than narrow the margin between the exchange-rate and the purchasing power parity, that they aggravated and did not cure the disease. On the other side, it may be urged that while a policy of free trade might help the disease to find its own cure, so that the margin would ultimately disappear, British manufacturers in the meantime would be ruined. The important point, however, is that this is one case of an artificial restriction upon trade of a type which introduces a disturbing feature into the true working of the theory.

Occasionally the restriction has been applied from the side of the country whose currency is depreciating. First the Germans, and later the French have found it necessary to prohibit the export of certain commodities, on the ground that foreigners, taking advantage of the exchange, were denuding the country of necessities. Indeed, at one time both nations have had to forbid the exportation of one set of commodities on this last ground, while they have also prohibited the importation of another set on the ground that they were luxury articles, and that their purchase prevented the recovery in the exchange. To such an extent do wide exchange fluctuations interfere with the flow of trade.

To sum up, while the theory seems intrinsically sound, in the majority of cases it has never had a chance to prove itself. It can, however, explain certain anomalies. It can show the extent of the power given by a depreciated currency to manufacturers of the country concerned to compete in foreign markets. The

distinction between a depreciated and a depreciating currency, for example, explains why at the end of 1923, when the franc was falling fast, French goods appeared cheap to Germans, though the mark at that date stood at a preposterous discount against the franc. It shows why the sudden recovery of the franc in the spring of 1924 inflicted serious damage upon French industry, for in this case the time-lag between exchanges and prices helped the foreigner against the French. In short, it provides a partial explanation for many apparent anomalies, and furnishes the investigator with a rough guide through the intricacies of post-war exchange movements. But it cannot with certainty be applied as a simple mathematical formula. It affords an indication of the true level to which a given exchange-rate should approximate, but provides no guarantee that the rate will go to or remain at that level.

Perhaps the theory works best in the case of two currencies which though depreciated still preserve some measure of stability and have not fallen in purchasing power to any serious extent. The obvious example is that of the pound and the dollar, and here the theory is of use in explaining several surprising movements. The detailed consideration of this application, however, must be left to Chapter XXIX.

XXVIII

THE NEW YORK EXCHANGE

Par and gold-points.—Is subject to fewer and less complex influences than the continental rates.—In the autumn is usually against this country, but favours us during the rest of the year.—The fluctuations in 1891.

PERHAPS the most important exchange is that with New York, the par of which is

$$\$4.866 = \text{£}1; \text{ or, } 49\frac{5}{16}d. = \$1,$$

while the gold-points for and against us used to be, respectively :

$$\text{about } \$4.89\frac{1}{2} = \text{£}1; \text{ or, } 49d. = \$1,$$

$$\text{about } \$4.83\frac{1}{2} = \text{£}1; \text{ or, } 49\frac{5}{8}d. = \$1.$$

The monetary system of the United States is a study in itself, but the main fact is that the Treasury pays out gold on demand, and imposes no impediment to an export : which is all we need enquire.

In the case of the American exchange the forces in operation are fewer and less involved than those that govern the course of the continental rates, and though it is never safe to lay too great weight on one particular influence to the exclusion of all others, still there are certainly times when we can argue with some show of plausibility that this or the other is the dominant

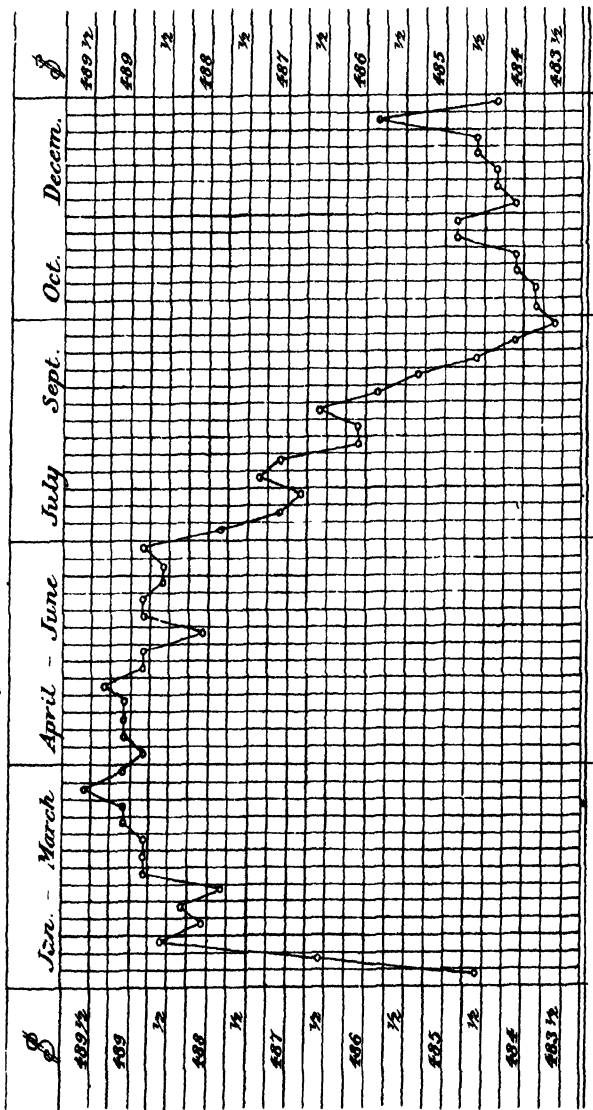
factor in raising or depressing the rate. It will be instructive therefore to examine the course of the rate for a year, and to see if we can suggest reasons for its fluctuations.

Owing to the magnitude of our imports from the States, the creation of bills in connection with the shipments of corn and cotton, &c., in the autumn is so great as in pre-war days almost invariably to turn the exchange against us from about August until December, but during the rest of the year it used to be mostly in our favour, and as a rule attained its maximum about April, that is to say, after the whole of the old crops had been paid for and before drafts had been offered in anticipation of the new. These features are present in the accompanying representation of the exchange in 1891, but in so exaggerated a form as to lead us to enquire whether any additional explanation can be put forward of the remarkable fact that the rate leaped up to the losing gold-point early in the year, remained there till mid-summer, and then fell precipitately to the gold-gaining point, from which it stood at only a slight remove for the remainder of the twelvemonth. This year provides an illuminating example of the factors governing the pre-war movements.

The spring, it may be mentioned, was marked, not only by an unusual demand for London paper, but, still more, by an altogether exceptional scarcity. Some months previously London had caught the infection of the "silver-boom," and had purchased large blocks of stock in the hope that the increased supply of currency

1891.

4. The course of the exchange in New York for cable-transfers on London



created by the new Silver Bill would lead to a great inflation of prices; but as that hope had been disappointed, and as the market here had had to contend first with the Argentine collapse and then with the semi-crisis of November, New York brokers were daily receiving heavy selling-orders from London, and had to remit enormous sums in settlement. This, added to the requirements of ordinary trade, which were unusually large owing to the imports that had been hurried into the country before the new tariff came into force, went a long way to explain the enhanced demand; but the remarkable dearth of bills that prevailed was more difficult to interpret. It seems probable that there were two chief reasons: one being the fact that America, which had hitherto been a large exporter of silver, was under the new Act using up her current production, and the other being the probable withdrawal of banking accommodation occasioned by the difficulties into which the great commission business of the Barings had fallen—for there can be little doubt that American bankers must have been suddenly deprived of blank credits to a very large total, and that they would be unable to draw on London until they had concluded fresh arrangements here. However that may be, the fact remains that for upwards of four months America had to settle up with us in gold, and that the exchange only eased off when bills began to come forward in anticipation of the crops. With the advent of July, however, the situation completely changed. The largest harvest on record, combined with

another "boom" in American Rails, caused such a glut of bills as to drive the exchange in a few weeks right over to the opposite specie-point. Then came our turn to liquidate in hard cash; and by the end of the autumn a very large portion of the gold received in the spring had recrossed the Atlantic.

The sudden advance noticeable about the middle of December may be ascribed with little hesitation to the demand for remittances to meet January dividends payable in London.

XXIX

THE NEW YORK EXCHANGE

(*continued*)

War changes.—The 1919–20 trade boom.—Purchasing power parity.—Reappearance of seasonal movement.—The American debt.—European politics and their effect.—Present Federal Reserve Board policy.—The course of the rate during 1924.—The London price of gold.

As stated in a previous chapter, the New York rate was “pegged” during the major part of the war, and it was only in March, 1919, that the peg was removed, while simultaneously the export of gold from Great Britain was prohibited. Since 1914 many important changes had taken place in the relative positions of the two countries. Britain had been in the war the longer, and had emerged with a greater burden of wastage and loss. Sterling had depreciated in purchasing power to a greater extent than had the dollar. In 1919, we needed heavy imports of raw materials and other goods to restore our life to a more normal footing, while our industries were still organized for the production of munitions and were unable to manufacture goods for export. Worse still, we had lost a large proportion of our American securities, and no longer could receive heavy remittances in the form of coupons and dividend warrants. In their place we had hanging over us the American debt.

Finally, we suffered from being to a large extent the

clearing-house for exchange dealings between New York and Europe. Even if transactions were carried out direct between New York and Paris, Rome or Berlin, the effect was the same as if they had been effected via London. Each month of 1919, as the Continental rates on London moved in our favour, so did the dollar rate move against us. Each fresh fall in the franc or the lire was accompanied by a fall in sterling in New York. This phenomenon was so noticeable as to lead Mr. F. C. Goodenough, the Chairman of Barclay's Bank, to speak of the New York-London rate as "the New York-Europe Exchange."

During 1919 and 1920 the world was in the throes of a trade boom. Every manufacturer was working hard to make up the leeway lost during the war, and few stopped to realize that the world was too poor to pay for the goods so produced. Prices rose, until in the spring of 1920 the pound had fallen in purchasing power to one-third, and the dollar to 40% of their pre-war value. Partly owing to this divergence in the purchasing power of these two currencies—at this moment the purchasing power parity was as low as \$3.660—and partly owing to the causes mentioned above, sterling sunk in February, 1920, to the record level of \$3.20.

In order to correct both the unhealthy trade position, and also the adverse New York exchange, the Bank of England raised its minimum discount rate first to 6%, and then, in April, 1920, to 7%. This move did not exercise any direct influence upon the New York exchange, as, a month later, the New York Federal Reserve Bank

in turn raised its discount rate to 7%. Indirectly, however, the raising of the Bank-rate assisted in breaking the trade boom and in bringing about a heavy fall in British prices. Imports from the United States declined in volume, and the world regained confidence in British credit, while the divergence between the internal purchasing power of the pound and dollar became less marked.

As stated at the end of the previous chapter, the subsequent course of the New York rate affords a rather apt illustration of the operation of the purchasing power parity theory. For this the reader is referred to the table on page 188. The first column shows the actual rate quoted, the average of the daily rates being taken over each month; the second column shows the purchasing power parity, as defined in the previous chapters; and the third column shows the percentage premium (+) or discount (—) at which sterling stood with respect to the purchasing power parity.

To understand the course of the purchasing power parity, we must consider the relative movements of British and American prices. From April, 1920, until the beginning of 1922, they were falling in both countries, but the decline was the more rapid in England, and so the purchasing power parity gradually rose. From January, 1922, until August, 1923, the British price-level remained practically unchanged, with the exception of a moderate advance in the spring of the last-mentioned year, but American prices rose until April, 1923, and then underwent a decline. From August, 1923, until May, 1924, the date at which this section was written, American

prices on the whole tended downwards, while British prices rose steadily to a peak in February, 1924, from which they suffered a slight set-back.

The result of the American rise during 1922 was to bring the purchasing power parity above the mint parity, *i.e.* American prices were, relative to 1913, higher than those in Great Britain. The autumn, 1923, rise in British prices brought the purchasing power parity below the mint parity.

The chief interest lies in the third or "divergence" column. On examining it, it will be seen that while the quoted rate is almost always at a discount as against the

Date.	Rate. \$ to £	Purchasing Power ¹ \$ to £.	Divergence. %.	Date.	Rate. \$ to £.	Purchasing Power ¹ \$ to £.	Divergence. %.
1920 Jan.	3-670	3-920	-- 6-1	1922 Mar.	4-379	4-740	-- 7-6
Feb.	3-382	3 710	-- 8 8	Apr.	4 415	4-740	-- 6-7
Mar.	3-743	3-660	+ 2-2	May.	4-416	4-800	-- 7 5
Apr.	3-927	3-780	+ 3-7	June.	4-451	4-810	-- 7-5
May.	3-848	3-840	+ 0-3	July.	4-447	5-020	--11-5
June.	3-951	3-920	+ 0-8	Aug.	4-464	5-160	--13-4
July.	3-861	4-020	-- 3-8	Sept.	4-436	5-170	--11 3
Aug.	3-625	3-960	-- 8-4	Oct.	4-437	5-170	--14-3
Sept.	3-516	3-940	--10-7	Nov.	4-172	5-130	--12-8
Oct.	3-475	3-830	-- 9-2	Dec.	4-599	5-150	--10-7
Nov.	3-426	3-790	-- 9 5				
Dec.	3-495	3 880	--10 0	1923 Jan.	4-656	5-070	-- 8-2
				Feb.	4-695	5-070	-- 7-4
1921 Jan.	3-737	3-960	-- 6-7	Mar.	4-694	5-040	-- 6-9
Feb.	3-872	4-020	-- 3-7	Apr.	4-656	5-000	-- 6-8
Mar.	3-910	4-180	-- 6-5	May.	4 626	5 010	-- 7 7
Apr.	3-931	4-100	-- 4 1	June.	4-613	5-020	-- 8-1
May.	3-978	4-110	-- 3-3	July.	4-581	5-000	-- 8-5
June.	3-785	4-080	-- 7-3	Aug.	4-558	5-050	-- 9-6
July.	3-627	4-080	--10-9	Sept.	4-542	5-060	--10 3
Aug.	3-648	4-130	--11-6	Oct.	4-519	5-030	--10-1
Sept.	3-723	4-130	-- 9-7	Nov.	4-372	4-850	-- 9-7
Oct.	3-876	4-350	--10-9	Dec.	4-362	4-730	-- 7-6
Nov.	3-965	4-520	--12-3				
Dec.	4-141	4-560	-- 9-4	1924 Jan.	4-268	4-670	-- 8-6
				Feb.	4-305	4-630	-- 6-8
1922 Jan.	4-220	4-610	-- 8-4	Mar.	4-292	4 650	-- 7-7
Feb.	4-350	4-750	-- 8-4	Apr.	4-352	4-570	-- 4-7

¹ Calculated from the U.S.A. "Bureau of Labor" and U.K. "Financial Times" index numbers.

purchasing power parity, the percentage is always bigger in the autumn than in the spring. In other words, if we substitute the purchasing power parity for the mint parity as the basis from which we measure the premium or discount of the rate, the old pre-war seasonal movement is once more revealed. Sterling stands at a large discount in the autumn and at a small discount or (in 1920) at a premium in the spring. This is perhaps shown clearest in the following table, where an average has been struck between the four January percentages, the four February percentages, &c., for the complete years 1920-23 given in the table on p. 188.

Month.	Divergence (average of four years, 1920-23).
January	— 7·4
February	— 7·1
March	— 4·7
April	— 3·5
May	— 4·5
June	— 5·5
July	— 8·7
August	— 8·7
September	— 11·2
October	— 11·1
November	— 11·1
December	— 9·4

As was the case in pre-war days, the rate is most favourable to us in the spring, and most adverse in the autumn, when the cotton and grain bills are coming forward.

This does not necessarily prove that the movements in the purchasing power parity govern the movements in exchange. For example, the heavy fall in the New York rate in the autumn of 1923 was popularly ascribed firstly to an irresponsible speech by a Cabinet Minister

in which he was understood to recommend a policy of inflation as a stimulant to British trade; secondly, to the 1923 General Election, and the fears temporarily aroused by the advent to power of a Labour Government; and thirdly to the usual autumnal demand for dollars. What the table does suggest is that it was only the third of these causes that affected the New York rate alone. Whatever influence was exercised by the two preceding factors made its mark on the internal and external values of sterling to an equal degree.

Interest payments in connection with the American debt do not seem to have had much effect, though they probably have retarded a possible recovery. For example, they have not prevented a narrowing of the divergence first to 6·8% in April, 1923, and then to 4·7% a year later. The same can be said of political developments on the Continent, the occupation of the Ruhr, the fall in the franc and mark, the recovery of the former, and the publication of the Experts' Report. Whereas, in 1919, London was thought to be the buffer between New York and Europe, in 1923 and 1924 we appeared to have escaped from that position.

The level of discount rates in London and New York have also exercised little influence, possibly because a change in one centre was almost invariably followed by a similar change in the other.¹ In particular, the advance from 3% to 4% in the Bank of England's rate in July, 1923, did not avail to prevent the heavy fall in sterling

¹ This theory is confirmed by the recovery in sterling during July–August, 1924. British rates were *not* lowered in sympathy with those current in New York, but showed a tendency to harden.

a few months later. But then the New York rate had been raised in the preceding April.

This last point arouses an interesting speculation as to the future. The 1922-23 rise in American prices is generally ascribed to an increase in bankers' power to grant credit consequent upon heavy imports of gold. As far as Europe was concerned, this gold was simply a commodity and did not affect the resources of the European money-markets. America, however, has always maintained the gold standard, and so this gold, on arrival, was available to fulfil its normal function of acting as the basis of credit; and a year or two ago, it was the custom to say that America was suffering from "gold inflation." Certainly, prices in America in the spring of 1923 were rising to the danger-point, and the New York Federal Reserve Board raised their rate in April primarily to check an incipient trade boom. In February, 1924, the reviser was informed by a New York banker that the Federal Reserve Board were determined to prevent any rise in prices, and were not granting credit to the full extent of their total gold holdings. Prices in America were high enough, and if it lay within the Federal Reserve Board's powers, they were not going to permit them to rise higher.

In April, 1924, the purchasing power parity stood at \$4.570 to the pound. Granted that no rise in American prices will take place, any rise of the purchasing power parity is contingent upon a fall in British prices. In May, 1924, this appeared equally unlikely, though for the sake of argument a decline of not more than 5%

seemed possible. This movement would bring the purchasing power parity to \$4·811. Assuming that, as in previous years, sterling will stand in the autumn of 1924 at a discount of 11% below the purchasing power parity, the New York rate at that date will have fallen to \$4·28. If British prices do not fall before the autumn, the rate should be as low as \$4·07. In any case, a return of sterling to the mint par of \$4·866 appears unlikely.

This prediction—for it was no more at the time this chapter was written—is not made with any certainty, and will very likely have been proved false by the time this edition is published. It is included simply as an indication of how the purchasing power parity theory may serve to forecast the trend of an exchange rate, where the forces at work are mostly known. If the observer can form some idea of the trend of internal prices in the two countries concerned, he may be able to make a rough guess at the future course of the exchange market. But, as urged in the preceding chapter, the theory is by no means exact, and the reviser will feel no surprise if his forecast turns out to be incorrect.¹

¹ In August, 1924, sterling stood at around \$4·50, a notable improvement since the spring, and the reviser's forecast appeared falsified. The purchasing power parity at that date was about \$4·67, making the divergence 3·6 per cent., as against an average of 8·7 per cent. for the four preceding years. Two causes may be adduced for this low divergence, (a) favourable sentiment caused by the apparent success of the London reparations conference; (b) the fact that, contrary to usual practice, London interest rates were higher than those in New York. Both these causes are probably ephemeral, and in any case our purchases of cotton and grain will have to be paid for. Hence, even now, the original forecast (which incidentally was made last spring by one or two authorities) may not ultimately prove too wide of the mark.

It has long been observed that the London price of fine gold rises and falls in sympathy with the New York exchange. The reader by now should have little difficulty in appreciating the cause of this. America still preserves a free gold market, and 258 grains gold, nine-tenths fine, are still interchangeable with a ten-dollar piece. American gold coins can still be legally melted down or exported.

In London, gold coin cannot be melted down, and gold in any form can only be exported under licence. But if an exporter can obtain a licence to ship gold to the United States, he can still get its full value in dollars, whereas if he sends its equivalent in currency or Bank of England notes, he can only get dollars at the current exchange of the day. In other words, gold is exchangeable at mint parity, and British currency at the ruling rate.

The pre-war price of fine gold was £4 5s. per oz., and this is all the Bank of England will pay at the present day. America, however, will pay £4¼ at par, *i.e.* $\$4.25 \times 4.866$ or \$20.6705 per oz. fine, and if this last sum be converted into sterling at the exchange of the day, it will correspond very closely to the London price of fine gold. For example, if sterling stands at \$4, the market price should be £5 3s. 4d. Slight variations are usually found, due to the relation between supply and demand. For example, India may be in the market and so raise the price. The bulk of the gold, however, sold in London goes to America, and so the States determine the price.

XXX

THE POST-WAR CONTINENTAL EXCHANGES

The three groups.—The neutral nations.—Where the fall was arrested.—The collapsed currencies.—Stages in the decline.—Foreign trade and speculation.—The final stage.—Lessons of the period.

SINCE the war, the continental exchanges can be divided naturally into three groups. The first comprises the "neutral" nations, whose currency has remained fairly stable. The second group includes those countries whose currency has depreciated seriously, but where the fall has been arrested. The third embraces countries where the currency has undergone a complete collapse.

<i>Group 1.</i>	<i>Group 2.</i>	<i>Group 3.</i>
Sweden.	Belgium.	Portugal.
Norway.	France.	Austria.
Denmark.	Italy.	Hungary
Holland.	Finland.	Poland.
Switzerland.	Czecho-Slovakia.	Rumania.
Spain.		Greece.
		Russia.
		Germany.

To trace the course of each one of these rates separately would involve writing a complete history of the post-war period. The most that can be done is to note one or two salient points, and to show how it is that these groups have arisen. One or two of these exchanges, however, are dealt with at greater length in subsequent chapters.

The neutral nations were able to preserve these currencies for the simple reason that they were spared the cost of the war, and in certain respects were able to profit from the demand for commodities of all kinds emanating from the belligerent nations. It is not true to say that they escaped unscathed from the war and its aftermath. The war dislocated the whole course of world trade. It rendered the seas unsafe for commerce. The Scandinavian nations suffered both from the German U-boat campaign and from the British blockade of the North Sea. Holland and Switzerland were wedged in between the two lines of warring nations, and the Swiss in particular were forced to maintain part of their army in a state of mobilization during the whole period of hostilities. Even Spain found her commercial links with Germany broken.

Finally, although all these nations have been able to maintain their exchanges within a measurable distance of mint parity, they could not escape from the depreciation in the purchasing power of gold. For a time Sweden did try to do so, and for a time the Swedish notes stood at a premium when compared with gold. This policy, however, could not be carried out indefinitely, and for several years since the war the Swedish krona has been at a slight discount as against gold. It is only within the last few months that the rate has returned to par and the gold standard been re-established in Sweden. •

Nor did the neutral nations escape the 1920 trade boom and the subsequent slump. It is a remarkable fact, the manner in which commodity prices throughout the world

rose in 1919-20 only to fall in the following year. Since the latter date there have been slight divergencies. The peseta fell during recent years as a result of the Moroccan wars and a succession of bad Governments which lasted till the revolution. At the end of 1922, there was a sudden slump in the Swiss franc due to the fear of a capital levy. Holland has felt the effects of the waves of speculation in foreign currencies, notably the mark and the franc. In this last case, however, the florin has remained extremely stable, and has always been at a premium as against sterling, though at a slight discount in New York. Holland has thereby been able to develop a certain amount of financial business, which would in pre-war days have come to London, and during the last year several new accepting houses have been established. The volume of business is still far below that transacted in Lombard Street, but the Amsterdam money-market is by no means a negligible factor.

The second group is notable for the manner in which the fall has been arrested. Every nation herein comprised was left at the Armistice with a heavy burden of war debt, of war damage, coupled with a general disinclination on the part of the people to face realities. Nevertheless, in every case the rot has been stopped. First Czecho-Slovakia, then Italy and Finland, and finally France and Belgium have turned the corner. Government expenditure has been cut down, taxation re-organized and increased, the insidious weapon of inflation abandoned, and a return made to the strait path of sound finance. These steps have not been taken without

difficulty. The cessation of inflation brought with it a sharp fall in prices, which caused great industrial suffering. At one time, Czecho-Slovakia formed an oasis of industrial depression in the midst of nations who were still following the mirage of inflation, and whose factories were working at their utmost capacity. Italy escaped a severe industrial crisis, but here the Government were content to check the fall and made no attempt to promote a recovery. In the case of France and Belgium, the corner was turned at too recent a date to be able as yet to form any conception of the troubles that may ensue.

The final case includes those countries where no attempt was made to return to financial rectitude until the collapse had proceeded to its uttermost limit. It is idle to attempt to analyse the motives of the Governments concerned. It may have been due to new political principles, as in Russia. It may have been the result of a deliberate act, such as, in the opinion of many, the German Government committed. It may have been caused by the force of circumstances, as in Austria, by wars, as in Greece, or by revolutions and bad government, as in Portugal. Further than this we cannot go, but must leave the final verdict to the historian.

The path these countries trod is by now familiar. Running throughout is a continual neglect to balance the national budget. At first this may have been deliberate, but once the rot had reached a certain stage, the Government was helpless. Ministers would impose what might appear adequate taxation, but by the time they

were able to collect it, the currency had depreciated to a point which rendered the payments hopelessly insufficient. Certain classes would benefit. The manufacturer could redeem his debentures out of the profits of a single month, the farmer could pay off a mortgage by the sale of a couple of pigs. Other classes would be ruined, especially those who depended on dividends from fixed-interest-bearing securities. It was from these that the manufacturer, the producer, and the farmer reaped their fortunes. The working-class could obtain employment, but at wages which, when transformed into goods, were far below the pre-war rates.

Foreign trade was not checked immediately. The depreciation of the national currency gave exporters a big advantage when competing in foreign markets. The industrialists in many cases foresaw what was coming and accumulated foreign balances before the depreciation had gone too far. Moreover, in the early stages of the collapse, people throughout the world were unable to believe that the depreciation was permanent, and bought depreciated currencies for the rise. This speculation on exchanges enabled Germany to finance part of her import trade for a time, and only brought loss to those who engaged in it.

After a time, the position became reversed. Not only did foreign speculation cease, but the nationals of the countries concerned lost all faith in their currency. Saving and thrift became an act of madness, while every prudent man spent his money as fast as he received it. Investment was confined to ordinary shares, and de-

ventures and preference shares remained neglected. Prices rose everywhere, and foreign currencies were in keen demand. It was in vain for the Government to attempt to prohibit the purchase of foreign exchange or to limit it to those engaged in genuine trade transactions. Means of evasion could always be found, and the only effect of these regulations was to stifle legitimate trade.

Then came the awakening : The national currency was practically valueless, and although the total volume in circulation might nominally total many billions, it would, in real value, be quite inadequate for the ordinary purposes of the country. Towns would start issuing their own local notes ; florins, dollars and pounds would begin to creep into circulation. Finally, the old currency would be tacitly abandoned, and a fresh currency would be established on a new and, it was hoped, more stable basis.

This is a rough history of post-war currency developments. It has been a period of instability, of violent changes, and of unprecedented collapses. Trade has not been easy, and many anomalies have arisen. But throughout the last six years many old lessons have been painfully re-learned, and pre-eminent among them stands the fact that rectitude in national finances provides the only path to safety, that the incidence of national extravagance can be postponed, but that the bill must be met at last.

XXXI

THE PARIS EXCHANGE

The characteristics of France.—Position at the Armistice.—Causes of budget deficit.—The three budgets.—Government borrowings.—Their danger.—The entry into the Ruhr.—The course of the franc.—The spring of 1924.—Effect of speculation.—The expert's report.—The new Government.

BEFORE the war, France was largely a nation of small farms and peasant proprietors, though the country contained distinct industrial areas. The people were noted for their thrift, and the majority had unsuspected reserves of savings. For example, after the war of 1870 the French paid their indemnity to Germany with remarkable speed, and the effect of the transference of so large a sum in so short a time was to stimulate French industry and to dislocate German trade, so much so, that Bismarck is reported to have declared that after the next war he would insist that Germany paid the indemnity. The French population had a marked aversion to any form of direct taxation, but was ready to submit to heavy customs duties and was eager to invest their savings in *rentes*. Before the war, the National Debt was probably much more widely spread in France than in England.

The war left France with a national debt of over

250 milliards¹ of francs, with a currency note issue increased from 5·714 to 37·275 millions of francs, and with a Government debt to the Banque de France of over 20 milliards. The whole north-eastern area had been laid waste, and heavy expenses had to be met in connection with reconstruction, while receipts from Germany under the reparations clauses of the Peace Treaty were still problematical. This was the position in 1919, and a realization of the difficulties with which the nation was faced goes far to explain the troubles experienced during the ensuing years.

During the period ending July, 1920, industrial conditions in France followed the same course as those throughout the world. Prices rose to a peak in the spring of 1920, and this movement was succeeded by a collapse. The chief point to notice is that the rise was much more marked in France than in Great Britain, and that simultaneously the franc fell from 27 to the pound (the rate current when the exchange was unpegged) to Frs. 63·54² in April, 1920. The subsequent fall in prices was again more rapid in France than in England, and the rate improved to under Frs. 50 in the following July.

Then came a divergence. French prices ceased to fall, and the franc once more began to depreciate. The cause of this must be sought in the condition of the national finances. Faced with the need for expenditure on reconstruction and with the absence of reparations

¹ One milliard equals 1,000 millions.

² Average for month.

payments from Germany, the Government were quite unable to make revenue balance expenditure. It may be argued that the nation was under-taxed, and that the Government should have overcome the national aversion to direct taxation. Direct taxes, however, were imposed, and it is probably true to say that the war had laid too heavy a burden upon the nation.

In one sense the deficit was kept within narrow limits. Three budgets were instituted. The first, which consisted of ordinary revenue and expenditure, in time very nearly if not quite balanced. The second comprised extraordinary expenditure, arising directly out of the war, and this failed to balance. The third included expenditure on reconstruction, and the only *per contra* entry was a debit against Germany for reparations payments, which never came, or were only received to a limited extent. In order to find the actual cash, the Government were forced to borrow, and this was the weak spot in the national finances.

Government loans took three main forms. First came short-dated Bons de la Défense Nationale. Next came reconstruction loans raised by the Crédit National, and by Co-operative Societies established throughout the Devastated Areas. Finally came Bons de la Trésor. Three series of these last were issued, one in September, 1922, one in February, 1923, and one in October, 1923. The rate of interest was 6% in each case, but the price of issue fell from 99½ for the first, to 99 for the second and to 98½ for the third series, while the terms of redemption also became more generous.

These figures illustrate the increasing difficulty experienced by the French Government in placing their loans.

The danger inherent in these loans was that they all matured at early dates, and if the Government were unable to re-borrow they would be forced back on direct inflation. Indeed it has been said that there was little difference between some of the Bons de la Défense Nationale and interest-bearing currency notes. Nevertheless, the Government did avoid direct inflation. The note-issue of the Banque de France never rose far above the point at which it stood at the Armistice, and in 1920 the Government concluded two conventions with the Banque de France, whereby their debt to the last named was to be liquidated at the rate of two milliards of francs per annum. Unfortunately, it proved impossible to adhere to this schedule. Only one milliard could be paid during 1922; while the amount due at the end of the following year could not be found immediately. This partial failure was one of the factors responsible for the gradual decline in the national credit and for the loss of faith in the franc.

It was this silent pressure on the public purse that probably accounted to a large degree for the French entry into the Ruhr in January, 1923. Reconstruction payments were gradually rising—by August, 1922, they had already totalled 80 milliards—and little or nothing came from Germany. The attempt to impose heavier taxes at the beginning of 1923 was defeated by popular opinion, and came to nothing. Conference succeeded

conference, with no tangible result. Finally, France despaired of receiving her due, and made one supreme effort to obtain it.

The result of this move is now well known. It completed the financial ruin of Germany, involved France in fresh expenses, while, a minor point, for several months it cut off the German coal deliveries, so that France had to purchase fuel from Great Britain and the United States, an operation which did not assist in the recovery of the franc.

The effect of these developments on the course of the franc can easily be traced. In July, 1920, sterling was quoted at under Frs. 50. By the end of the year the rate had risen to Frs. 59. During 1921 the rate improved, the closing figure for the year being in the neighbourhood of Frs. 52, while in the previous July it was as low as Frs. 46. During the first half of 1922 there was, again, little net change, but the second half of that year witnessed a rise in sterling to Frs. 64 on the last day of December. It was at that time that the first attempt was made to impose additional taxation, while a fortnight later the entry into the Ruhr took place.

During 1923 the fall in the franc proceeded at an accelerated rate. By August, sterling had reached over Frs. 80, and though a slight rally followed, in November the rate was again Frs. 80. Then the world began to lose faith in the franc, and for a few weeks, as sterling went first to 90, next to 100, and then to 110, it seemed as if the franc were following the mark. Speculators and dealers, both inside and outside France, were selling

all the francs they held, and were also selling forward for the fall; and during those weeks no one could be found to buy.

Fortunately, the French Government of the day were not afraid to act. In the middle of January, 1924, measures were introduced for effecting economies in national expenditure, for preventing tax evasion, and for making an all-round increase of 20% in existing taxation. These proposals were designed to balance not only the ordinary budget, but also the one relating to expenditure recoverable from Germany. In other words, the French Government realized that they could wait no longer for reparations, but that the bill for reconstruction expenditure must temporarily be met by France.

Having given proof of their determination to repair the breach in the national finances, the Government were enabled to obtain credits in London and New York. Armed with these, they were able to offer sterling and dollars on the Bourse in an attempt to check the depreciation in the franc. The effect of their action was almost electrical. Unknown to most, an enormous "bear" position was open, and numerous speculators in Holland, Germany and Austria had sold francs forward without providing any cover. Hence the mere news that these credits had been opened was sufficient to send them into the market to buy francs at what price they could. Between the middle of March and the end of April, sterling fell from Fcs. 120 to Frs. 67.

It is easy to blame speculators for the closing stages

of the depreciation of the franc, and to rejoice that they were punished by its subsequent recovery. Little or no criticism, however, was heard in France of those speculators who "bulled" the franc in 1920 and 1921. The truth of the matter is, that nine times out of ten the speculator follows rather than guides the course of the foreign exchanges. While, therefore, we can congratulate the French on the resolute manner in which, almost at the last minute, they saved their currency, we need not rejoice overmuch at the ruin thereby inflicted upon many operators. A speculator performs a useful function, and as a rule serves to minimize price fluctuations. In this particular instance he may have aggravated and not alleviated the situation, but his action need not be too strongly condemned.

Here we must leave the French and their currency. The Experts have issued their report, and laid before the world a scheme whereby Germany can make such reparation as lies within her power. A new Government has arisen in France, free from some of the old beliefs and prejudices. It may be that the recovery in the franc has proceeded too far and too fast, and that, if only in the interests of French trade, some small relapse will be desirable. The rest must be left to the future.

X·XXII

THE BERLIN EXCHANGE

The aftermath of war.—The attitude of the German nation.—Government weakness.—The first depreciation of the mark.—German industry.—A German economist's view.—The occupation of the Ruhr.—The final collapse.—Reconstruction and the rentenmark.—A fictitious stability.—The lack of working capital.—The experts' report.—Its lessons and value.

THE Reichsmark provides the most notable modern example of the total collapse of a currency, and for this reason the post-war history of Germany will remain of interest even after current tragedies and controversies have been forgotten. The seeds of the collapse were probably sown in the war. Germany, undeterred by her experience following the war of 1870,¹ was bent on recouping herself for her war expenditure by an indemnity from the Allies, and financed the costs of the war by means of loans rather than by heavier taxation. The foreign trade of the country was largely destroyed by the blockade, while the whole of German industry was diverted to the prosecution of the war:

Then came defeat, the Armistice, and revolution. Germany was faced with a heavy internal debt and with the need to pay and not to receive an indemnity. The Government was new and weak, the people had lost their

¹ See p. 200.

morale, their sense of duty and discipline. The country possessed no stocks of goods, save what it could produce, and was badly in need of raw materials from overseas. She had lost the Lorraine iron-fields and the Saar coal-mines, she was soon to lose part of Upper Silesia. Her shipping was confiscated, and went to replace those belonging to the Allies, which had been destroyed in the submarine campaign.

Under these circumstances, some depreciation of the mark was probably inevitable. How far it was a deliberate act is another question. The middle and *rentier* classes, if they had realized what was happening, could not but have opposed it; for it simply meant their ruin. The industrialists would welcome it; for each successive fall increased their power to compete in the world's markets. Again, each rise in internal prices increased their profits, and few would realize at first that profits earned in paper marks had little real value. Some, indeed, probably foresaw the whole course of events, and were able to ride and profit from the storm. Farmers would remain unmoved, for they could live on their own land, and in the last resort refuse to sell produce to the towns for worthless currency. Finally, the extreme Nationalists would see that each successive depreciation of the mark would render it more difficult for Germany to pay reparations. In fact, during the early days of the collapse, the rush of foreign speculators to buy marks enabled the Reich to levy from rather than to pay tribute to the world.

How far the Government was swayed by these different

schools of thought is again uncertain. Probably they were simply content to drift. A currency policy which postulated an unbalanced budget was not without its attractions, and when they tried to arrest the fall, it was already too late. The budget could not be made to balance, for taxes assessed with the mark at 400 would not be collected until the exchange had reached 800. The revenue had been halved before it was collected.

The above is possibly the answer to the question whether the depreciation of the mark was a deliberate act of the German nation. The actual decline falls within four phases. First came the collapse to 240 marks to the pound. This occurred during 1919 and the early part of 1920, and for a time the fall was stayed at that point. Germany had replenished her more immediate needs, reparations payments had not yet begun, while speculative purchases of marks by foreigners undoubtedly played their part in supporting the mark.

During this period German industrialists had a great advantage in the world's markets. The internal price-level, though high above the pre-war point, had not risen in proportion to the collapse of the mark on the foreign exchange markets. Though the total value of German exports was not excessive, especially when expressed in foreign currencies, their volume was considerable, and complaints of German competition were heard all over the world. In some countries, notably in Spain and Great Britain, special protective measures were adopted. Nevertheless, the German trade balance, in so far as it could be calculated with any accuracy,

was probably adverse. Imported goods, though possibly less in volume, were, relative to home-produced or exported goods, so expensive as to turn the scale against Germany.

The second phase began in the autumn of 1921 and lasted until the end of 1922. During this period the mark fell slowly but surely, until, in December, 1922, sterling was quoted at 35,000 marks. The reparations controversy had begun, increasing pressure was put by the Allies upon Germany, while from time to time payments in cash or kind were made. The industrialists were making their fortunes (if profits in paper marks could be so designated), and they viewed the continued and increasing deficit in the national finances with equanimity. Moreover, each successive deficit increased the apparent impossibility of Germany to pay reparations. Now that we can see the goal that Germany has reached through her policy of drift and default, we can form some idea as to whether she profited from her refusal to pay. It may well be that a German economist was right when he said, "For an honourable German there were three ways open. We might have said, 'We have honourably lost the war. Men of honour pay what they owe, therefore we shall pay.' We might have said, 'We deny that the charges put upon us are justified. We are disarmed. Therefore we pay, but we shall take our revenge.' There was a third way. We might have said, 'Let us pay two yearly instalments in full and we shall not need to pay a third one. A nation can pay another nation only in goods. Our deliveries will smash the markets of the world, and the recipients will implore us in the interest

of their starving workers not to pay any more.' . . . By the policy of printing notes the country has squandered in a few years ten times as much as the enemies demanded."¹

When the possibility hinted at in the third alternative of Dr. Lansburgh is weighed against the ruin of the middle classes; the misery and suffering arising out of the Ruhr occupation; and the risks the future has in store for commercial and industrial as well as political Germany, it may well be that the honest path would also have proved the safest.

The third phase opened in January, 1923, with the French entry into the Ruhr, and the adoption of the policy of passive resistance. The effect of this upon the mark was little short of disastrous. The Ruhr, possibly the richest industrial area in Germany, ceased to be productive and depended for its existence on the financial support of the Reich. The consequent burden upon the national finances, already half ruined, proved sufficient to complete their collapse. By the autumn of 1923, when the support was abandoned, sterling was quoted at 18 billion marks to the pound. The mark had ceased to count.

Then came the fourth phase, during which some attempt was made to save what was left from the wreck. In November, 1923, the Rentenbank was instituted. This bank derived its assets from mortgages from all real property within the Reich. Against these a new note, the rentenmark, was issued, the full value of which was the gold mark, or in other words 4·2 rentenmarks

¹ *v. Westminster Bank Review*, February, 1923, p. 5.

were equivalent to one dollar. The old paper mark was stabilized at the rate of one billion to the rentenmark.

The total issue of rentenmarks was limited to 3,200,000,000. Of these, 1,200 millions were advanced to the State, and an equal sum to the Reichsbank and other note-issuing banks. Simultaneously, the Government lost their right of borrowing unlimited sums from the Reichsbank in order to fill the deficit in the budget. The rentenmark was designed for internal circulation only, and was not meant to be used for settling foreign debts.

Since that date, stability has been achieved, but nevertheless this stability is largely fictitious. The assets on which the rentenmark is based consist mainly of real property and are thus far from being liquid. The success of the rentenmark is mainly due to the confidence in it felt by the population, and this confidence is only maintained by a rigid restriction of credit.

The result is that Germany has learnt the lesson that during the five years ending November, 1923, the nation was living on its savings, and that these are now exhausted. The country has been bereft of all its working capital, and the industrialists have at last found that efficient plant and machinery are of little avail without the means to finance their employment. Foreign trade is still carried on, but only through the medium of a new gold discount bank, and by credits in foreign countries. In short, Germany at the present moment is quite unable to finance her own commerce, and has to depend for credits on the willingness of foreign nations to grant them.

The chief hope in June, 1923, lay in the Experts'

Report. By the time these lines appear, it may be possible to see how far the recommendations of the Dawes Committee provided Germany with a way of escape, or how far Germany was willing to accept them. Meanwhile, the report is worthy of careful study by every one engaged in the world of finance. It is more than an attempt to solve the reparations problem, it is both an examination of Germany's present troubles and also an epitome of the science of foreign exchange. It teaches the lesson of how a country's prosperity depends upon rigid adherence to the principles of sound finance. It suggests means for the rehabilitation of the German currency. It shows the ways in which Germany can best raise the money with which to discharge her liabilities under the peace treaty. And, more important still, it makes it clear that it is one thing to raise the money in marks, and another thing to exchange them into foreign currencies, into francs, pounds or dollars. A thorough appreciation of the principles underlying the proposed Committee of Transfer carries with it a knowledge of the theory of foreign exchange. The report is lengthy reading, too long to be quoted here, but every word of it will repay study.

And here we must leave the mark. History, for good or for ill, is being made every day, and no account of the fortunes of Germany can be final. It may be that the German nation will realize how near it is to the precipice, but the recent elections suggest that the old spirit is by no means dead. The Experts' Report provides a hard road back to safety. An alternative route, if it exists at all, has yet to be found.

XXXIII

THE SILVER EXCHANGES

The Indian currency system before and after 1835.—Value of the rupee.—The rate is always against us.—An easy way of finding the sight-exchange from the price of silver.—India Council Drafts.—The exchange with China.

THE leading silver-rate is that of India, which is quoted in pence for one silver rupee, the Indian currency-unit. Prior to 1835 a double standard was in force, the gold mohur and the silver rupee both being legal tender at fixed proportionate rates, just as the napoleon and the franc are at the present time in France; but the chief, almost the only, currency medium was silver. In that year the Indian Government, in conformity with the modern, and what it held to be the more correct, currency doctrine, determined to resort to a single standard; and in so doing had practically no choice but to adopt silver. From that time therefore the silver rupee has been the only coin of legal tender; and the gold coins of India have become mere tokens.

As the rupee contains 165 grains of fine silver, while an ounce of the standard metal contains 444 grains fine, the par with India is

1 rupee = $\frac{165}{444}$ of the price per ounce of standard silver.

This, is of course, a fluctuating par, and varies from day to day with the price of silver, with which it must necessarily keep step.

The rupee exchange is usually against us. As India sells much more than she buys, there remains, even after deduction of the amount payable in Europe for interest on Government and railway loans, for pensions to old servants, and for the costs attendant upon the government of India in this country, a considerable balance in her favour, which has to be remitted in specie, and hence the exchange-value of the rupee is, under existing circumstances, invariably higher than its intrinsic value. It stands in fact at or near specie-point, which in the case of export from this side is about $3\frac{1}{2}\%$ above par.

From 1873, when the action of the group of double-standard countries, known as the Latin Union, broke the link that had hitherto subsisted between silver and gold, until 1890, when the United States began once more to legislate in favour of the white metal, the chief influence affecting the price of silver was the quantity of India Council drafts offered for sale. About a quarter of the total expenditure of India consists of payments in England, which are provided for by selling bills here drawn on the Indian Treasuries. These Council drafts, which amount to £16,000,000 a year, more or less, are paid on the other side in rupees, and are brought here by merchants who have to make payments in India, and who would otherwise have to ship silver. Consequently, they provide a competing

remittance with silver and intercept its outflow, so that, other things being equal, the larger the quantity offered for sale the lower the price of silver, and the lower the Indian exchange, the effect being much the same as though the Indian Government put bullion up for sale here.

Next to India the principal silver exchange is that of China. China possesses no national silver coin, but deals in the metal by weight, the unit being the Tael of 580 grains Troy.

XXXIV

THE RUPEE EXCHANGE

The period 1893-1916.—The gold exchange standard.—Two conditions upon which it depended.—The effect of the war.—Modifications made in the system.—The Pittman Act.—The Babington-Smith Committee.—Its recommendations.—Why they broke down.—The post-war situation.

THE position of the rupee described in the last chapter persisted until the year 1893, since which date a series of changes has gradually taken place. These thirty years can be conveniently divided into three periods, namely, 1893-1916, 1916-19, and 1919 onwards.

The changes made during the first period were designed to remove the dangers and inconveniences arising from the fact that the rupee exchange hinged directly on the sterling price of silver. The process was not an easy one. Native conservatism was strongly wedded to the silver rupee, and it was essential at all costs to preserve the outward form of the rupee and not to impair the confidence placed in it. Gradually, however, the following steps were taken.

(1) The right of the public to tender silver to be coined into rupees was withdrawn.

(2) The Secretary of State undertook to sell Council drafts¹ to an unlimited amount at the maximum rate

¹ See p. 215.

of 1s. $4\frac{1}{8}d.$ per rupee. He also undertook (in practice, though not officially) not to sell at a lower rate than 1s. $3\frac{2}{3}\frac{1}{2}d.$ per rupee.

(3) The British sovereign and half-sovereign were made legal tender at the respective rates of 15 and $7\frac{1}{2}$ rupees. The Government also engaged to change sovereigns and half-sovereigns into rupees at the request of the public.

(4) In the event of a temporary trade balance adverse to India, the Secretary of State undertook to sell Reverse Council drafts on London, if and when the rate fell below 1s. $3\frac{2}{3}\frac{1}{2}d.$

It will be seen that the effect of these changes was to "peg" the rupee rate at 1s. $4d.$ per rupee. Should trade or other demands tend to raise the rate to 1s. $5d.$ or 1s. $6d.$, the Secretary of State engaged to sell rupees in the form of Council drafts in sufficient quantities to bring the rate back to 1s. $4d.$ Conversely, if the rate fell towards 1s. $3d.$, the Secretary of State sold sterling until the normal rate was restored.

This system also gave the Government a means of control over Indian finance. For example, if internal trade became over-active and led to an excess of imports, the sale of Reverse Councils that ensued involved the collection of rupees (in payment therefor) by the Indian Government. Thus the quantity in circulation was contracted, and this narrowed the basis of credit, depressed prices, and counteracted any incipient boom in trade.

The system has been termed the "Gold Exchange

Standard." It will be seen that the rupee was linked to sterling, which is a gold currency, but that shipments of gold played no direct part in correcting an excessive movement of the London exchange rate. Imports of gold and silver continued, but such imports of the precious metals were more akin to those of other commodities, and entered into the visible trade balance of the country in the ordinary way. The sale of Council and Reverse Council drafts corresponded to shipments to and fro of gold, but it did no more than afford a somewhat artificial substitute.

The success of the system depended on two conditions. The first was that the bullion value of the rupee should not exceed 1s. 4d., the normal rate. If this value was passed, it would pay the public to melt down rupees for their silver content, while coinage could only be carried on at a loss. Bearing in mind the fact that one rupee contained $1\frac{1}{4}$ oz. of standard silver, it will be seen that the price of silver had not to rise above 43d. per standard ounce. The second condition clearly was that the Secretary of State should have enough rupees at his command to enable him to sell such quantities of Council drafts as the public wished to buy.

This system worked, on the whole, satisfactorily until the outbreak of war. The Secretary of State experienced little difficulty in providing himself with sufficient rupees to meet all Council drafts sold by him, while it was only found necessary, in the present century, to sell Reverse Councils in the three years 1907-08, 1908-09, and 1909-10. The war, however, made a radical change

in the situation. Exports of goods from India increased as a result of the demand of the Allies for raw materials of every description, while imports contracted owing to the inability of the belligerent nations to produce goods not intended for the prosecution of the war. The British troops in Mesopotamia drew their pay in rupees, and the provision of these sums constituted an "invisible" export from India. The consequence was a big increase in the favourable trade balance of India, and a large expansion in the demand for rupees. The Secretary of State was faced with a growing demand for Council drafts, and by 1916 he was experiencing the greatest possible difficulty in obtaining the rupees needed to meet the demand in full.

Apart from the increase in the demand for currency, the actual supply thereof contracted as the war progressed. Gold imports declined as the result of the restrictions upon shipments imposed by other countries. The world production of silver diminished, partly as a result of internal troubles in Mexico, and the price consequently began to creep up towards the danger-point of 43*d.* per ounce.¹ Rupee notes could be issued to a limited extent, but any marked expansion in these would entail the risk of the Government not being able to redeem all those presented for payment, or, in other words, the danger of inconvertibility. In short, by 1916 the two conditions on which the system depended were gradually ceasing to operate.

During the years 1916-19, which form the second of

¹ It passed this point in August, 1917.

the three periods mentioned at the beginning of this chapter, radical modifications were introduced. The sale of Council drafts was rationed, and their price gradually increased in sympathy with the rise in the price of silver.

The highest rate touched was *2s. 4d.* per rupee, in December, 1919. All gold imported into India was required to be sold to the Government, while in order to lessen competition in the world's markets, the private importation of silver was prohibited. Further restrictions were also made, forbidding the melting down of coins and the exportation of silver.

These measures afforded some slight relief, although it will be appreciated that the moment the price of Councils rose above *1s. 4½d.*, the original system virtually stood abandoned. The quantity of silver available, however, still fell below the country's requirements, and the convertibility of the note issue was still threatened. In April, 1918, the United States Government, following upon negotiations with Great Britain, passed the Pittman Act. This law gave the United States Treasury power to sell to other Governments silver from its vaults up to a sum of \$350,000,000, and under its provisions 200,000,000 fine ounces were sold to India at a price of $101\frac{1}{2}$ cts. per fine ounce. It was further laid down that all silver so sold should be replaced by purchases of silver from American producers at a minimum price of \$1 per fine ounce.

This shipment of 200,000,000 fine ounces eased the position in India, and kept the currency intact until

hostilities had ceased. The exchange system, however, had undergone grave modifications, and its restoration to pre-war conditions was, in the circumstances obtaining in 1919, out of the question. Some new system had to be evolved.

With this object in view, a Government Committee, popularly known as the Babington-Smith Committee,¹ was appointed in May, 1919. They presented their report, signed by all members except one, on 22nd December, 1919. Their recommendations were too many to be given here in full, but the principal of them were as follows :—

(a) That the stable relation to be established between the rupee and gold should be at the rate of Rs. 10 to the gold sovereign.

(b) That Councils drafts should be sold by open tender at competitive rates, and that Reserve Councils should be sold, if necessary.

(c) That the importation and exportation of gold and the importation of silver should be free.

(d) That the Indian note issue should have a metallic reserve of at least 40%.

The Committee's proposals evoked considerable criticism on their first appearance, it being pointed out that the establishment of a rate of Rs. 10 to the gold sovereign linked the rupee to the dollar and not to sterling*. The scheme, however, broke down almost immediately, as a result of developments unforeseen by

¹ The late Sir Henry Babington-Smith, K.C.B., was Chairman of the Committee.

the Committee. Firstly, the report was issued at a date when prices of commodities generally, and of silver in particular, were at their highest, and no one in December, 1919, anticipated the slump of the next two years. Silver fell from $89\frac{1}{2}d.$ to just over $30d.$ per standard ounce, and this collapse alone made the raising of the rupee (from Rs. 15 to the pound to Rs. 10 to the gold sovereign) unnecessary. It is fair to state here that a collapse of this magnitude in silver was, in part, due to two causes, neither of which could have been foreseen. Firstly, it had been thought that the operation of the Pittman Act would maintain silver at at least $101\frac{1}{2}$ cts. per fine ounce. In point of fact, the United States Treasury applied the Act only to silver mined in the United States, and by 1921 silver of foreign origin was selling in New York at a lower price than the $101\frac{1}{2}$ cts. obtained for American silver. Secondly, the breakdown of several European currencies led to the melting-down of silver coins and the sale of the metal. These and other factors accounted for the fall in silver.

The 1921 trade depression exercised a serious effect upon Indian commerce. The moment the slump set in, the demand for raw materials, such as cotton, jute, &c., produced in India fell away, and Indian export trade at once contracted. Goods of European production, however, ordered by Indian importees during the 1920 boom continued to arrive until the end of 1921. The result was a severe crisis in India, as many of these goods could not be paid for, and a heavy adverse trade balance. The rupee began to fall, first from 10 to the gold sovereign

to 10 to the paper pound, *i.e.* to 2*s.*, then to 1*s.* 8*d.*, and finally it returned to around its pre-war level of 1*s.* 4*d.* The Government tried to stop the fall by the sale of Reverse Councils, but they quickly found this policy too expensive, and so abandoned it.

By 1923, conditions in India, though still not too satisfactory, had improved, and the excess stocks of goods imported in 1921 had largely been absorbed. The Babington-Smith report still remains nominally in force, but the rupee itself has been fairly stable at about 1*s.* 4*d.* There is, however, no suggestion at present of the formal abandonment of the report, nor possibly is such a step necessary.

THE END

