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# PRINCIPLES

OF

# POLITICAL ECONOMY

BY

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# PREFACE

I MUCH regret the unexpected delay in the issue of the second volume of this work, which has been entirely due to a severe and protracted illness.

I have to express my great obligations to Dr. Keynes, who has revised the proofs and made many valuable suggestions throughout, and to Professor Bastable for his careful revision and criticism of the chapters on the theory of foreign trade.

J. SHIELD NICHOLSON.

UNIVERSITY OF EDINBURGH,
November, 1897.

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attempt to measure utility by money involves a series of unreal hypotheses.[1] At this stage it may be pointed out that if the attempt is fruitless in the theory of consumption it is positively misleading in the theory of exchange. Utility and exchange-value are essentially different. Perhaps the best way to bring out clearly the contrast is to refer to actual records of prices such as are given in the works of Tooke, Newmarch, and Rogers. By reference to these records we can determine the relative exchange values of a large number of important commodities (including labour of various kinds) over several centuries. We can obtain from the records the precise rates of exchange, but as regards the feelings of the buyers and sellers, or the utilities and disutilities acquired or endured through the exchanges, the records are silent. We can discover the actual rents of lands and houses, but there are no records of so-called consumers' rents. The increasing benefits of cheapness and plenty, the lessening burdens of scarcity and taxation, may be described and in different ways may be made darkly visible by the art of the historian, but the money measures of marginal utilities have never been set down except in hypotheses. The same line of criticism applies equally to the present and to the past. Consider any great organised market, the price lists of which are published every day in the newspapers. We may say that within certain narrow limits every purchaser pays the same price at the same time in the same market, but we can say nothing of the corresponding utilities to the various purchasers, except that — such is the variableness of circumstances and human nature — they are probably very different in different cases. The great banker and the small investor pay the same price for their marginal purchases of consols, but their feelings on the matter cannot be expressed in terms of money.

[1] Cf. Bk. I., Ch. III., and Appendix.

Even if there were no essential differences between individuals, or if they were divided into representative classes and we were able to assume that at any rate within these groups all buyers and sellers were precisely similar and similarly situated, it would be an error to attempt to express utility in terms of exchange value or of prices. It would be as absurd as to write out one of Beethoven's Sonatas, for the benefit of deaf people, in terms of the vibrations corresponding to the melodies and harmonies.

§ 3. *The Real Advantage of Exchange.* At the same time, taking the wide meaning of utility adopted by economists, we may say with truth that the final cause of all exchange is the increase of utility, — the primary object is to exchange the less for the more useful. And the very use of the terms "increase," "less" and "more" implies no doubt that some method of measurement of utility must be actually adopted in practice. Everybody must have some kind of "hedonistic calculus" when he goes to market, or what is much the same thing for this purpose, must have some common sense, and he must form an idea of what he wants and how much it will be worth his while to spend. The criticism of the last section is directed, not against the measurement of utility, but against the idea that we can speak of the price of a quantity of utility (for example, a shilling's worth of happiness) in the same way as we can speak of the price of a quantity of meat and drink.

The real advantage of exchange as connected with utility may be illustrated by contrast. A thoroughly bad bargain, such as might easily arise from imperfect knowledge or erroneous estimation, would be one in which both parties lost in utility. A fanciful example of this kind may be given in the exchange by a deaf man with a short-sighted one, of an ear trumpet for a pair of spectacles. But unfortunately it is not necessary, except for the clearness of extremes, to appeal to fancy.

One of the greatest difficulties in labour questions is

to adjust the kind of work so that the bargain may not really end in the exchange of inefficiency for degradation. Before the factory legislation, bargains of this kind were plentiful, and even now in many cases payments for overtime are often really loss both to him that gives and to him that takes. Again, in international trade, practices have often arisen which have resulted in a loss of utility to the nations concerned. The exportation of slaves balanced by the importations of spirits and gunpowder was a curse both to Africa and America. Reciprocal adulteration and chicanery, as in the exchange of sized cotton for dirty corn, bounties on exports and duties on imports, are other instances where under the disguise of exchange mutual injuries have been inflicted. Trades have been fostered which ought never to have arisen, and trades have been destroyed which ought to have been developed.

§ 4. *Simple Barter.* It is obvious that exchange implies two terms at least. If we say that a thing possesses exchange value or can be exchanged, we necessarily imply that it can exchange for something else, and when we speak of the exchange value of a thing we must directly or indirectly refer to the value of some other thing or things. In practice in modern societies, and indeed in all societies beyond the most rudimentary stages of development, this other thing is money of some kind, and by value in the concrete we mean price. An Englishman who talks of the exchange value of anything means the number of pounds sterling or parts thereof which it will fetch in the market or be appraised at by a fair arbitrator.

But the very familiarity of the term "price" conceals the difficulties with which value abounds, and it is best to begin with a very simple hypothetical case and to ascend gradually to more complex realities. Let us then for once abandon history, and take a desert island peopled by two shipwrecked "economic men," A and B. Let A possess all the food, say so many pounds of biscuit, and B all the

drinking water — so many pints. Assume further that they are certain to sight a passing vessel within a limited time, and that the stores of both food and water are amply sufficient for both until the time of rescue. In this case it is clear that if half of A's food is exchanged for half of B's drinking water, both will make a gain in utility that may be called infinite, if that is their subjective estimate of the value of their lives, and the bargain will be struck at once. Suppose, however, by a short step towards reality, that the rescue is uncertain and the stocks of both food and drink are limited. In this case we may suppose that each will ascribe so much utility to successive portions of his own stock and of that of his neighbour. As before, the first exchanges of a limited portion — enough for one meal — would create infinite utility, but it does not follow that an equal division of goods would ensue, that is to say, as the natural result of exchange. A will go on exchanging food for water as long as he thinks he gains something in utility, and in technical language he will stop on the margin of doubt when the final utility of the last portion acquired is just equal to that of the last portion given in exchange; and similarly of B. But the actual rate of exchange that will be adopted is indeterminate, and the principal point to observe is that it is by no means sure that it will be such as to give a maximum utility to both. It is unnecessary to obscure the illustration with a greater cloud of hypotheses; it has answered its purpose if it has shown that the motive to exchange is the gain of utility, that the gain on the two sides may be unequal, and that even in the very beginnings of trade the merchants do not profess to trade for the public good.[1]

[1] It is easy to see the gain of utility when on a desert island the economic A, dying of thirst, exchanges with the similar and similarly situated economic B, dying of hunger, superfluous bread for superfluous water, but even in this simple case it is quite possible that both might part with too much for the maximum of benefit to be derived by both. In truth

§ 5. *Of Complex Barter.* It is a common saying that all exchange is ultimately barter; and although in practice, as division of labour is extended, money in some form becomes indispensable, it is generally supposed that light will be thrown on the real advantages of exchange if we disregard the money mechanism by which it is effected. And since as a matter of fact most people spend the greater part of their money incomes, we may justly assume that in reality they barter the use of their labour, — mental or bodily, — of their capital or of their land, against the various things and services on which their incomes are expended.

It will be found, if a modern industrial society be analysed in this way, that there are several species of barter, of which the case already considered is typical of one only, and that not the most important. We do not often find people who have things to sell considering how much they will reserve for their own personal use ; in production on a large scale this part is infinitesimal and one of the chief characteristics of industrial progress has been the continuous increase in the production of commodities intended not for home use but for sale.

Consider the case of ordinary manual labour. It is

barter, which at first sight appears to require no elucidation, bristles with difficulties. According to the law of utility already explained, as A parts with his commodity for successive portions of B's commodity, the last portion retained progressively rises as the last portion acquired falls in utility, and similarly of B. At first a drink of water for a bite of bread would be of the greatest advantage to both, but suppose that A has satisfied his thirst before B has satisfied his hunger, the inducements to exchange are no longer equal. In general terms every exchange alters the relative utility on both sides of acquisition and retention, and unless we make certain arbitrary and hypothetical conditions the final rate of exchange actually adopted is indeterminate. In the case supposed it would perhaps be most natural to assume that A and B would join their stores and dole out equal measures to each, so that the rate of exchange would be such as to give the maximum benefit to both combined. In most cases of barter, however, the parties remain independent, and all that we can say is, that so long as both separately gain in utility they will go on exchanging.

exchanged (passing over the mechanism of the money wages), against various finished products in the hands of retail traders. The gain in utility to the workman is obvious; in doing his work he has undergone a certain amount of restraint and fatigue, and in return he enjoys the necessaries and comforts of life.

The retail traders obtain the commodities from the wholesale merchants, and these again from the various producers. The producers are in part manual labourers, so that in the last resort we have to some extent an exchange of one kind of manual labour against an endless variety of other kinds.

But manual labour is only one of the agents of production. Besides the many other forms of labour — including that of the retail and wholesale merchants — we have capital in endless variety and the materials and powers afforded by nature. Thus the common labouring man barters his labour — if the analysis of barter be pushed to its logical conclusion — against infinitesimal portions of the multitudinous contributions of the rest of the nation. And what is true of the common labouring man is true, *mutatis mutandis*, of all the other members of society. The general result is a vast increase of utility; toil and trouble are outweighed by content and happiness; the efforts of labour, the abstinences of capital, and the temporary relinquishment of proprietary rights are all rewarded by a balance of satisfaction.

§ 6. *Consequences of the Foregoing Analysis.* The analysis in the previous section not only shows the real advantage of exchange, but yields some important theoretical results. In the first place, it brings out clearly the objective character of exchange. When we say the labouring man exchanges his labour for goods, by labour we mean not his feelings but his work.[1] Technically the labour spoken of is objective and not subjec-

[1] *Cf.* Bk. II., Ch. I., Ch. V. On Objective and Subjective Labour.

tive. If it were otherwise, exchange must be regarded ultimately as the exchange of disutilities against one another, and this could only mean (as in contributions to some distasteful charity) that one person sacrifices himself on condition that so many others do likewise. This conception might perhaps be useful in a system of compulsory and minutely ramified Socialism, but is obviously absurd under the assumption of freedom of competition. Secondly: The surplus utility that results from exchange does not in the last resort arise from the barter of relatively superfluous stocks as in the simple case first considered. It would be absurd to say that one man exchanges the services which he does not require for his own use for a mass of services which other people do not require for their use. Even if the analysis is not pushed so far, and we only consider the exchange of material commodities, the idea of relative superfluity is not in general appropriate for the explanation of the facts. The process of production is continuous, and people do not accumulate superfluous stocks if they can help it; there is — to anticipate a little — a continuous adjustment of supply to demand. Thirdly: In complex barter it seems impossible to introduce the conception of final utility. Even the labouring man does not in making a bargain balance the disutility of his last minute's work against the utility of the uttermost farthing of his pay. Both his hours of work and his wages are in reality determined by causes of a much more far-reaching nature. Fourthly: We see again the danger of attempting to explain social phenomena from the individual standpoint. Political economy, as the name implies, has to do with human beings forming a political society, and we shall find that we advance a very little way in discovering the laws of exchange by considering two abstract men in a hypothetical situation.

## CHAPTER II.

### OF EXCHANGE-VALUE AND PRICE.[1]

§ 1. *Of Exchange Value.* When we speak of the value of a thing we must always explicitly or implicitly refer to some other thing or things. Value does not express a quality attaching to a body considered in itself or even in relation to its possessor. When in common language we speak of the intrinsic value of a thing, all that we really mean is its utility, and for scientific purposes it is best to abandon the use of the term "intrinsic" just as we abandon the phrase "value in use." The definition of value involves precisely the same considerations as the definitions of the terms "rest" and "motion" in natural philosophy: "When we say that a body is at rest we use a form of words which appears to assert something about that body considered in itself. But the phrase "at rest" means having no velocity with respect to that on which the body stands, *e.g.*, the surface of the earth or the deck of a ship. It is therefore unscientific to distinguish between rest and motion as between two different states of a body in itself, since it is impossible to speak of a body being at rest or in motion except with reference expressed or implied to some other body."[2]

Similarly, value is a purely relative term.

§ 2. *Of a Measure of Value.* "At the same time and place," says Adam Smith, "money is the exact measure of

[1] In this chapter I have, to some extent, made use of my article on "Value" in the *Encyclopædia Britannica*, ninth edition.

[2] Clerk Maxwell: *Matter and Motion*, p. 29.

the real exchangeable value of all commodities. It is so, however, at the same time and place only." The distinction implied between *real* and *nominal* value involves the same kind of confusion as that explained in the last section. It seems to be thought that when we speak of the value of a thing without explicit reference to some other thing there is always a tacit reference to something that has a claim to be the standard in what is supposed to be the *real* sense of the term. In the search for this real standard much ingenuity has been wasted by economists. If once we grasp the notion that value is relative we can easily see that the correlative term will vary according to the purpose in view. Sometimes it may be desirable with Adam Smith to express values in terms of labour. Suppose, for example, that we wish to compare the wealth of Crœsus with the wealth of Jay Gould. We should, I conceive, put more meaning into the comparison if we estimated how much unskilled labour each could command than if, after converting sesterces into dollars, we simply stated the money value. Again, for certain purposes, as Adam Smith also points out, corn may be the best measure, and in the theory of rent we often find it useful to distinguish between corn rents and money rents. But neither corn nor labour is in any sense an absolute standard.

It may be doubted if Mill himself had altogether got rid of the idea of intrinsic value. "By the price therefore of a thing we shall henceforth understand its value in money; by the value or exchange value of a thing its general power of purchasing; the command which its possession gives over purchaseable commodities in general." But what, we may well ask, is meant by command over commodities in general? Are we to understand the complete national inventory of wealth? When we think of the value of a coat as distinct from its price, do we put on the other side all the lands, houses, furniture, and the other things that go to make up commodities in general? Certainly not; the only thing the value of which we ev-

try to express in this way is standard money, and even in this case it is usual to take certain representative commodities as in the various methods of constructing index numbers.[1] If, however, we make a selection on any representative principle, this selection will be more or less arbitrary. Mill is to some extent aware of these difficulties, and he points to the obvious fact that a coat, for example, may exchange for less bread this year than last, but for more glass, or iron, and so through the whole range of commodities it may obtain more of some and less of others. But in this case are we to say the value of the coat has risen or fallen? On what principles are we to strike an average? The attempt to answer these questions in a satisfactory manner is at present engaging much of the attention of economists. Mill, however, instead of attempting to solve the problem, frankly answers that it is impossible to say except in one very simple case. If, owing to improvements in manufactures, the coat exchanges for less of all other things, we shall certainly say that its value had fallen. This line of argument brings Mill to the following position: "The idea of *general* exchange value originates in the fact that there really are causes which tend to alter the value of a thing in exchange for things generally, that is, for all things that are not themselves acted upon by causes of similar tendency." There can be no doubt as to the truth of the latter part of this statement, especially if we substitute for one commodity groups of commodities. But it is doubtful if the idea of general exchange value can be said to arise from a consideration of the causes of value; and recent writers have constantly emphasised the distinction between any change and the causes of the change. An appreciation of gold — in other words an increase in its

[1] In an essay entitled "The Measurement of Variations in the Value of the Monetary Standard," I have attempted to take the national inventory as the correlative term. — *Money and Monetary Problems*, 4th edition, p. 256 *et seq.*

purchasing power — is one thing, but the causes of that appreciation are quite different, and the question of measurement can be separated entirely from the question of causes.

Following out the idea, however, that in general exchange value we really consider causes, Mill goes on to say that any change in the value of one thing compared with things in general may be due either to causes affecting the one thing or to causes affecting the large group of all other things, and that in order to investigate the former it is convenient to assume that all commodities but the one in question remain invariable in their relative values. On this assumption any one of them may be taken as representing all the rest, and thus the money value of the thing may be said to represent its general purchasing power. That is to say, if for the sake of simplicity we assume that the prices of all other things remain constant, but that one thing falls or rises in price, the fall or rise in price of this thing will indicate the extent of the change in its value compared with things in general.

There can be no doubt, as will appear more clearly in the sequel, that in discussing the laws of value we must generally introduce the conception of price. Nor is this to be wondered at when we remember that in the course of industrial progress barter has continuously given way to a money economy. If, as a matter of fact, in a modern society all values are expressed in terms of money, it seems absurd for purposes of theory to neglect this central fact. To avoid any fallacy of the mercantilist or inflationist order, all we have to do is to assume that the standard remains fixed in value, which is only another way of saying that general prices remain steady; and obviously, compared with the whole mass of purchasable things, the effects on the general level of a movement in price of one thing may be neglected.

§ 3. *That Relative Prices must be adjusted to Relative*

*Values.* It will be found, however, that in certain parts of the subject it is convenient to keep up the distinction between value and price. We are not always entitled to assume that there is no change in the general level of prices, or in other words in the purchasing power of money. On the contrary, some of the most important and difficult questions in value are those that arise in connection with changes in the value of money. Although the mint price of gold is fixed by law, the value of gold as compared with things in general is constantly liable to change; and the distinction between the value and the price of gold is fundamental. Again we may express the depreciation of silver in terms of its gold price per ounce, but it is quite a different inquiry whether the value of silver relatively to commodities in general has fallen. Similarly, when the problem is discussed whether the premium on gold is the exact measure of the depreciation of inconvertible paper, the distinction between price and value is essential. Again, it has been the practice of English economists since Ricardo to discuss international values in the first place without the intervention of money.

Seeing then that the distinction between value and price is to be retained, it seems desirable even at this early stage to indicate a proposition as to their relations of very wide application, namely, that whatever disturbances due to causes affecting money may take place in general prices, if time is allowed for them to exercise their full effect, relative prices will be adjusted to relative values. In other words, a change from one level to another in general prices (owing to currency changes) must, when equilibrium is restored, leave relative values unaffected, excepting always the relative value of the standard itself. This implies that relative values are determined by real causes, and that money is only the instrument by which they are measured. Such real causes are, for example, the quantity of labour and capital required in production. It is of course not only possible

but probable, that in the process of transition from one level of prices to another, some commodities will feel the effect more than others, and in this case there will be a real disturbance of value due to the movement in prices. But at once all the forces of industrial and commercial competition are called into play to bring about a re-adjustment.

These topics will call for more detailed consideration in the chapters on the theory of money;[1] in the present section my object has been simply to make clear the distinction between value and price.

§ 4. *That a General Rise or Fall of Values is impossible.* It follows at once from the conception of the relativity of the term "value" that in the strict sense of the words a general rise or fall in values is impossible and in fact contradictory. One thing — *e.g.*, gold — may exchange for more or less of all other things, and the values of these things relatively to gold may have fallen or risen accordingly, but it is equally clear that the value of gold has moved in the opposite direction. Just as in relative velocities anything affecting all of a number of particles equally produces no relative displacement of position, so precisely in values — anything which operates equally on all produces no change in relations, but any change affecting some and not others does produce such a change. Simple as this proposition may seem when stated in an abstract form, it has been applied to the verge of paradox. Take, for example, Mill's contention that "general low wages never caused any country to undersell its rivals, nor did general high wages ever hinder it from doing so."[2] Whether we agree with Mill or not, it will be found that the basis of his argument is this very simple proposition. It may be pointed out also that he obtains equally paradoxical results in treating of a general excess

[1] *Cf.* also *Money and Monetary Problems*, 4th edition, Essay VIII., p. 294.

[2] Book III., Ch. XXV. 4.

of supply[1] and of the tendency of profits to a minimum.[2] The object of these illustrations is to impress on the reader the necessity of getting clear ideas on the subject of value at the very outset. In the words of Mill: "The smallest error on that subject infects with corresponding error all our other conclusions; and anything vague or misty in our conception of it creates confusion and uncertainty in everything else."

§ 5. *Examples of the Relativity of Value.* For the sake of clearness it may be well to put in the briefest possible manner some of the most important examples of the relativity of value. When we say that value is relative we mean that the value of a thing expresses its rate of exchange in terms of "something else." This "something else" varies according to the object in view, or in other words it is sometimes convenient to express the value of a thing in one way and sometimes in other ways.

(1) The commonest way is to take Money, and thus the value of a thing means its money value or price. In the words of Hudibras:

> "For what is worth in anything
> But so much money as 'twill bring."

(2) We may take as the other term "things in general" or the aggregate of purchasable commodities. This meaning is of great importance in one case, namely in the case of the standard metal itself (say) gold in gold-using countries. Here price and value are totally different, the one being absolutely fixed and definite, the other varying according to different causes. And yet it must be observed — as will be explained more fully later on — *comparative* stability of value is one of the most important requisites of the monetary standard.

(3) Sometimes we express the value of gold in reference to special groups of commodities as in the various systems of index numbers. Sometimes the group is com-

[1] Book III., Ch. XIV. [2] Book IV., Ch. IV.

posed for special purposes as in the comparison of nominal and real wages, workmen's budgets, and the like.

(4) Sometimes in place of the standard it is convenient to take some other commodity, such as labour or corn. We have actual examples of labour rents and corn rents, and in the theory of rent it is often convenient to distinguish between money rents and produce rents.

(5) The value of silver may mean its own fixed mint price or its price in gold, which has recently varied so much, or its purchasing power over things in general or over various groups of things.

(6) In all these cases value must be considered as objective. Recent attempts to make marginal utility the measure of the value of marginal increments abandon this objective character of value and as already explained lead to confusion. They seem to rest on a similar fallacy to that which caused so much waste of effort in the search for a *real* measure of value.

## CHAPTER III.

### OF MARKETS.

§ 1. *The Development of Markets — and (a) of Publicity.* The development of markets is not only extremely interesting but throws much light on their present organisation and functions.

(*a*) The first point we observe is the *publicity* of market dealings. In Saxon[1] times attempts were made to prohibit all buying and selling except in towns, and in each burgh according to its size a certain number of the townspeople were to be elected to act as witnesses in every case of bargain and sale. The object of these regulations was partly to guard against theft and partly to protect and augment the market tolls which belonged to the king or other overlord.

The well-known exception to the ordinary English law, that sale in market-overt passes the property even in stolen goods, may probably be traced to the laws of Ina and Edgar.[2] Similarly, the fact that sale by sample has been recognised only in very modern times may be accounted for by the fact that such a mode of selling would be against the interest of the lord of the manor or other superior of the market.[3]

The publicity of market dealings is well illustrated by the great mediæval fairs[4] which have survived down to

[1] Kemble's *Saxons in England*, Vol. II., p. 337.

[2] Smith's *Mercantile Law*, 10th edition, "Introduction," p. lxxi.

[3] *Ibid.*

[4] An interesting account of "fairs" is given by Rogers, *Six Centuries*, pp. 145–153.

our own times. The transactions took place in open booths or in stalls erected for the period of the fair. In case of dispute summary justice was administered in the court of pie-powder.[1] Some of the regulations involved in the franchise of fairs and markets, although perhaps originally passed for the benefit of the superior, were also indirectly at least in favour of the consumer. Thus goods sold within so many miles of the market (seven is a common number) were liable to forfeiture; this indeed increased the tolls, but it also increased the supply.[2] The same rate applied to goods secretly sold.

Fish, in the Middle Ages, was a most important article of food, partly owing to religion[3] and partly to the lack of fresh meat. Many of the rules enforced for the sale of fish are plainly intended to increase the visible supply. Thus no one was allowed to sell fish during the night, and fish brought to market in boxes or baskets were to be unpacked and exposed to public view. In some cases dealers were not allowed to purchase before the ordinary consumers were satisfied, and inn-keepers in particular were forbidden to purchase from the fishers.[4]

The various laws and regulations which struck at adulteration and false weights and measures were enforced mainly through the publicity of markets.[5]

It is obvious that the publicity of market dealings is one of the conditions that tends to secure uniformity of price in the same market at the same time. It is, however, as will appear presently, only one of these conditions.

[1] A corruption of *pieds poudres,* alluding to the dusty feet of the merchants.

[2] *Cf.* Ochenowski, *England's Wirthschaftliche Entwickelung*, p. 159.

[3] "Even their fast days they call it fasting when they hae the best o' sea-fish frae Hartlepool and Sunderland by land carriage, forbye trouts grilses, salmon and a' the lave o' it." — *Rob Roy.*

[4] For an excellent account of the fish trade, see Schanz, *op. cit.*, Vol. I., pp. 624–630.

[5] Gross, *Gild Merchant*, p. 47.

§ 2. *The Development of Markets — (b) Freedom of Trade.* Another important characteristic of markets that appears in the earliest times is the comparative freedom of trade. As pointed out by Maine,[1] the original market-place was probably a space of neutral ground where the domains of two or three villages converged. Into this neutral ground the customs which regulated most parts of the village life did not penetrate; from the first there was associated with markets the idea of sharp practice and hard bargaining, and the rule was *caveat emptor.*

In mediæval times it is true that the traders had to pay various tolls before they could reach the markets, — *e.g.*, passage and pontage, — and additional tolls in the shape of rents for their stalls — stallage — and taxes on purchases.[2] But in return the lord of the manor afforded security of access and maintained the market.[3] Once the goods were exposed in the market there was a general freedom of trade, which is in marked contrast to the various regulations imposed by the law and the Gilds. Mr. Gross[4] gives many instances in which the prohibitions imposed by the Merchant Gilds are definitely stated to be suspended on fairs and market days. At other times only the members of the gild were allowed to buy and sell certain things, but in the fairs and on market days these regulations were relaxed.

§ 3. *The Development of Markets — (c) Competition Prices.* It was implied in the last notice that the idea of market price does not rest on law or custom but on competition; but the point deserves special attention. In the mediæval period, as Dr. Cunningham[5] has well shown, the idea of just and reasonable prices was an ac-

[1] *Vill. Comm.*, p. 193.
[2] A. Smith (McCulloch's edition), p. 177.
[3] Rogers, *Agric. and Prices*, Vol. I., p. 140.
[4] Gross, *Gild Merchant*, Vol. I., p. 47.
[5] *Growth of Industry and Comm.*, Vol. I., p. 233.

cepted Christian doctrine, but it is doubtful if this idea ever had much influence in the market-place.

It was generally recognised that the law was powerless to regulate the prices of the raw materials whether of food or manufacture, although occasionally attempts were made to fix maximum prices, *e.g.*, of fish.[1] The price of bread was regulated according to the price of corn, and the price of meat according to the price of sheep and cattle, but these prices were left to the market. Again, as regards other things, *e.g.*, wine, whilst retail prices were frequently fixed wholesale prices were left free.

§ 4. *The Development of Markets — (d) Limits of Time and Place.* Down to quite recent times markets were in general limited both as regards time and place. The markets were held in the Middle Ages as a rule on the same days as are devoted to such purposes in towns at present; though in London the markets were perpetual. In many articles, *e.g.*, dried fish, dealings were prohibited before a certain time in the day. As regards *place* in the larger towns and cities there were different market-places for different things, the names of which still survive. Similarly, as regards the great fairs, we find definite limits of time and place. The famous fair at Stourbridge[2] was held in a field near the monastery of Barnwell, about a mile from Cambridge. It was proclaimed on the 4th of September, opened on the 8th, and the business continued for three weeks. The erection of the booths was begun on the 24th of August, and the builders had a right to destroy the corn if not already removed from the field, and on the other hand the owner of the field could destroy the booths on Michaelmas day if not cleared before that time. The space allotted to the fair, about half a mile square, was divided into streets, each devoted to some special commodity.

§ 5. *The Development of Markets — (e) Restraint of*

[1] Schanz, Vol. I., p. 627.

[2] For full details, see Rogers, *Six Centuries*, p. 149 *et seq.*

*Speculation.* One of the most striking points of contrast between early and modern markets is the repression in the former of all speculative dealings. As late as 1800 a corn merchant was indicted in London for *re-grating*, that is, for selling in the same market and on the same day a quantity of oats at an advance in price. Similarly forestalling and engrossing or buying up stocks on the way to market, or with a view to future sale, was strictly prohibited.[1] Adam Smith thought it necessary to point out at some length that *bona fide* speculation in corn, as in other things, tends to steady prices, and that buying to sell again tends to cheapen commodities, because dealers can distribute goods at a lower rate than the producers themselves. In modern times the creation of trusts and syndicates and speculation for *agiotage* have shown that the mediæval restraints were not altogether unreasonable in principle. It is worth observing also with Rogers that even in mediæval markets producers and consumers adjusted supply and demand respectively according to their interpretation of the amount available.[2]

§ 6. *Of the Regulation of Prices by Law and Custom.* It is clear from the preceding sections that the prevailing notion that during the Middle Ages prices were in general fixed either by law or custom, and that competition is solely a product of modern times, is greatly exaggerated. Any one who will take the trouble to glance over the tables, collected with such admirable perseverance by Thorold Rogers, will have proof positive of the constant variations in price according to demand and supply. At the same time to some extent the central government, and to a greater extent the corporations and gilds, did attempt to regulate prices, as in the assise of bread and beer, and in fixing on different occasions the retail price of wine

[1] Adam Smith (McCulloch's edition), p. 237. For a full account, with many illustrations of the mediæval restrictions on speculative dealings, see Schanz, *op. cit.*, Vol. I., Pt. II., Ch. IX.

[2] *Six Centuries*, p. 144.

and beer. The following passage from Bacon[1] is instructive: "Henry VII made statutes . . . for stinting and limiting the prices of cloth, one for the finer and another for the coarser sort, which I note both because *it was a rare thing to set prices by statute especially upon our home commodities*, and because of the wise model of this act not prescribing prices but *stinting* them not to exceed a rate." But the effects of law and custom on prices were in general indirect, and resulted from the restraints imposed upon competition.

As already explained, many of those restraints were conceived in the interests of the consumer and were intended to make prices as low as possible. In other cases, however, the craftsmen and merchants tried to restrict competition to their own advantage, and they succeeded to such an extent that in the end "they drove commerce and industry to rural districts and to smaller free trade towns, such as Birmingham, Manchester, and Leeds, where their natural spontaneous expansion was not hampered by ancient privileges. Thus the rigid protection of the olden chartered boroughs sapped their commercial prosperity, silencing the once busy towns of Norwich and Exeter and sweeping away the cloth halls of York and Winchester."[2] Some account has already been given of the influence of the Craft gilds in distribution, and the operation of the Merchant gilds is equally important in the department of exchange. At first it must be observed that the craftsmen were in early times themselves also dealers; they made and sold their goods just as small shoemakers do at present, and in many cases the customer provided the material.

Accordingly the Merchant gild in its original form consisted mainly of craftsmen, and the members were free burgesses. The leading idea of the gild thus constituted was to ensure freedom of trade between the gild brethren

[1] *History of Henry VII.*, quoted by Schanz, p. 654.

[2] Gross, *Gild Merchant*, p. 52.

and to impose all kinds of restrictions on the trade of strangers. Non-gildsmen, for example, were forbidden to keep shops or to sell by retail; thus no non-member, according to one charter,[1] was allowed to buy or sell wool except by the sack or some greater weight. Very often we find a right of pre-emption for the gild brethren, and if strangers obtained the privileges of the gild it was only by paying heavy tolls.

In process of time, as the crafts became of greater importance, they formed separate gilds, and so far the old gild was disintegrated, since the interests of the separate crafts were often divergent.[2] For further detail I must refer the reader to Mr. Gross, whose work on the subject may now be considered authoritative. My principal object in this, as in the preceding section, has been to show that competition — regulated or unregulated — has always been of fundamental importance in the exchange of commodities; where we do not find competition in markets it is generally because we do not find the markets. Even, however, as regards labour and land, as shown in the preceding book, competition was always at work under the surface of custom.

It is also of the utmost importance to observe that in the cases in which prices were fixed by law we have in general no evidence that the law was observed, whilst we find constant complaints that the law was broken.[3]

§ 7. *Of Modern highly organised Markets.* It remains now to bring this example of historical definition or analysis to a conclusion by describing the highly organised markets of modern times.

The conception of a modern market of the most highly developed type includes, in the first place, the idea of *publicity*. For the purposes of pure theory we assume that all the buyers and sellers are equally well informed as to the general conditions of supply and demand, and

[1] Gross, *op. cit.*, p. 39. [2] Gross, p. 116.

[3] *E.g.*, the statutes of labourers.

that all transactions are known. We assume also perfect *freedom of trade*, or, in other words, that as regards law and custom all the traders are on the same footing. We assume further that prices are determined solely by *competition*. The principal exception in modern times is found, not in the interference of the state, but in the combinations of individuals. The state, however, often exercises a general overlordship and takes tolls in the form of stamps. So far we have simply the full development of the earlier conceptions. But as regards the limits of *time* and *place* we observe a great change. It is true that all markets must in a sense be held within limits of this kind, but the limits are very different from what they were. Markets of the kind under review are continuous in *time*, that is to say, after allowance is made for the purely physical necessities of food and rest. Account is taken of prospective as well as of present supply. Similarly the market-place has been extended so as to cover the whole commercial world. Credit and electricity have broken down the barriers between markets. Again, instead of *speculation* being forbidden it is encouraged: on the stock exchange, for example, every jobber is a re-grater and engrosser, and every broker is a forestaller; and the more they succeed in these mediæval crimes and sins the more they are honoured. The law does occasionally make an incursion with the idea of preventing speculation of some kind, but in general, if it is found to conflict with a recognised practice it is quickly ignored, and the man who seeks to enforce it or profit by it to evade a bad bargain runs the risk of being expelled from the market. Whether the speculation in modern markets tends on the whole to steady prices or to increase fluctuations, and whether the general result is to lower or to raise prices, are difficult questions which must for the present be postponed. Here it is sufficient to notice that one effect of speculation is to extend still further the limits of time and space as regards market dealings. People sell what they

have not got and carry over their bargains, hoping eventually to obtain stock to deliver at a lower price. Thus the effect of prospective supply and demand is taken into account to a still greater degree than if all sales were *bona fide*. Similarly, people buy what they cannot pay for, and carry over their bargains in the hope that eventually the stock will rise in price and they may pocket the difference. Thus again the influence of prospective supply and demand becomes of importance. Accordingly we cannot assume that in the actual determination of market prices there is at any definite time and place a certain visible supply which must be sold at any sacrifice, or a certain *bona fide* demand which must be met there and then at any cost. Such cases are extremely rare in highly organised markets, and in fact occur only when the markets become disorganised. On the contrary, even market prices are affected by the probable conditions of production and of demand in the future and over wide commercial areas.

Thus there is no sharp opposition, as used to be generally assumed, between market prices and prices as determined by cost of production. We cannot say that for the things that have been made there is one law of value, and for the things that are to be made there is another, that the first depend on the law of demand and supply, and the second on cost of production. At the same time, however, it will be found convenient to treat first of the general laws of demand and of supply separately, and of their union in the general law of demand and supply, without taking into account the conditions of production. The action and reaction of market prices and cost of production may then be considered with special reference to the latter. Thus the distinction between market and natural (or normal) prices is not only retained, but for logical purposes made more sharp than before.

## CHAPTER IV.

### OF DEMAND AND SUPPLY.

§ 1. *The Law of Demand.* By *demand* is meant the quantity demanded at some particular price. It is obvious that demand cannot mean desire to possess, for the simple reason that everybody desires to possess every thing. It is assumed, then, that the buyer can pay the price offered, or, as is sometimes said, that the demand is effectual. Again, the qualifying phrase "at a price" is essential because, as a rule, with every change in price a different quantity would be demanded. It is indeed this fact that the quantity demanded varies with the price (in mathematical phraseology, that it is a function of the price) which is at the base of the general law of demand.

This general law may be stated: *As the price falls (other things remaining the same) the quantity demanded increases, and, conversely, as the price rises the quantity demanded decreases.*[1]

The effects of change in price upon the quantity demanded, are well illustrated in the imposition and remission of taxes. Take, for example, the summary in Mr. Gladstone's *Financial Statement* of 1861, on the effects of

[1] If a small change in price causes a considerable change in the quantity demanded, the demand, according to Professor Marshall's nomenclature, is said to be *elastic*, and, in the converse case, *non-elastic*. This distinction has been well worked out in detail by Professor Marshall. He shows, for example, that the same commodity may, according to the scale of prices, be subject with a high price to a non-elastic demand, and the demand may become elastic through a fall in price, and again non-elastic through a further fall. — *Principles*, Bk. III., Ch. IV.

the increase, decrease, and abolition respectively of duties in 1860. Where duties were increased imports fell off 17¼ per cent, with no change of duties imports remained the same; with duties lower imports increased 17¼ per cent, and with duties repealed imports increased 40 per cent. It is well known that after a certain point is reached an increase of taxation ceases to be productive, because there is a counteracting falling off in the demand, and, conversely, the diminution of a tax may increase the revenue owing to the more than corresponding increase in the demand.

It is hardly necessary to point out that in some things the demand is much more elastic than in others, or that the quantity demanded responds more readily to changes in price. In general, however, with a few comparatively unimportant exceptions the law holds good as stated above, always provided that other conditions remain the same. It is, however, possible and indeed probable that these conditions may vary. Such variations really amount to a change in the law of demand as affecting the particular commodity under consideration.[1]

Before passing on to consider the meaning and effects of changes in demand, attention must be called to the wide application of the general law of demand. It is true not only of material commodities but of services and other forms of immaterial wealth, and in fact of everything that will bear quotation in terms of prices. If for any reason the wages of domestic servants rise, people will endeavour to do with a less number or an inferior kind; they will do some of the work themselves and leave some of it undone; and if wages fall they will increase their employment. The same law applies equally to the highest forms of professional services. In these days relatively few people employ their own chaplains, partly because their price has gone up; similarly, an increase in the collections in churches tends so far to check the de-

[1] See below, § 2.

mand for the services rendered. It would be an interesting speculation to attempt to discover the effects of a diminution in legal expenses on the quantity of litigation or of a rise in medical charges on the demand for attendance. One of the greatest merits of the *Wealth of Nations* is the application of general economic principles not merely to commodities but to education, both secular and religious, for children and for people of all ages, to the administration of justice, to the equipment of military forces, and to the registration of doctors.[1] Whenever and for whatever purposes voluntary payments are made, the law of demand comes into play.

It may naturally be expected that a law of such universal application should be derived from some simple principle. The connection of demand with price gives a clue to the principle, namely, in the nature and uses of money. The amount of money which people have to spend is limited, the choice of objects is relatively unlimited. A fall in the price of any thing (other things remaining the same) leaves more money available for the purchase of that thing, whilst a rise leaves less money than before. It is of course possible that in the one case some (even all) of the money saved may be devoted to other things, and in the other case that some (even all) of the money may be drawn from other things to make up the deficiency. But both of these cases would really amount to a change in the law of demand for the various commodities concerned, that is to say, to an increase or decrease in demand. This phraseology requires careful explanation.[2]

The law of demand, as applied to consumable commodities, is closely connected with the general laws of utility treated of in the first book. The utility derived from successive portions of a commodity for consumption grad-

[1] See his letter to Dr. Cullen, in McCulloch's edition, Appendix, p. 583.

[2] See next section.

ually diminishes whilst the utility of the money retained after every purchase gradually increases. Thus on both grounds, in order that a purchaser may go a point further in demand the price must fall. Conversely, if a thing rises in price this utility of the last portion originally acquired no longer seems equal to the utility of the money required to purchase it, and the quantity demanded falls off. In the general statement of the law of demand, however, it is not necessary to go over again the laws and conditions of consumption.[1]

§ 2. *On Changes in Demand, or of Increase and Decrease in Demand.* By an increase in the demand for a thing we mean that a greater quantity than before will be taken at the same price. Conversely, by a decrease in demand we mean that less is demanded at the same price.

The following are some of the important influences which may lead to a change in demand. It will be seen that they also explain the closely allied subject of differences in elasticity of demand for different commodities.

(1) *The Use of Substitutes.* A rise in the price of possible substitutes for a thing may increase the demand for that thing. This influence accounts for much of what is called the sympathy of markets. The best illustration is, perhaps, found in stock exchange securities. All those with equal yield and similar risk, or more generally with similar advantages and disadvantages, tend to command the same price. If for any reason a certain group, (say) first-class securities, rise in price, so far that tends to increase the demand for securities of the second-class, or people will buy others at a higher price. Thus, recently the great rise in railway debentures in England has increased the demand for the ordinary stocks of the best lines.

(2) *Indirect Uses.* We must consider not only the

[1] *Cf.* Bk. I.

direct uses of a thing for consumption, but the indirect uses in production. It is possible that owing to the changes in the demand or in the supply of other things a thing may be demanded for productive purposes to which it was formerly not applied. Thus various waste products which at one time were in little or no demand, may experience a great rise in demand owing either to some invention or to an increase in the demand for some article in the production of which they may be used.

(3) *Changes in Income.* The price people are willing to give always depends partly on the amount of money they have to spend. Thus an increase in the wealth of a nation or of a class changes the demand; the same quantity or more will be taken at a higher price.

Conversely, a diminution in wealth will lead to a fall in demand. The effect of these influences is well brought out in inflations and depressions of trade. If trade is good, pictures and other works of art experience a rise in demand, whilst, conversely, the demand falls off with falling profits. Thus indirectly, it may be observed, changes in demand also indicate changes in income.

(4) *Demand and Utility.* The utility assigned to things by intending purchasers affects the demand, and it is obvious that the estimates of utility may change according to changes in fashion, education, morality, or law. We must also take into account the choice between present and future uses.

The relative importance attached to immediate and deferred consumption varies according to different conditions, and produces a corresponding change in the demand for commodities. Sometimes whole nations will break into extravagances, with a consequent great increase in the demand for luxuries. Deferred utility may seem worth less either on account of the uncertainty of realisation or on account of the greater vividness of the present. Such is usually the case in times of pestilence. This point has already been discussed in connection with the

genesis of capital, in which the distinction between immediate and deferred consumption is fundamental.

Thus it is clear that the quantity demanded of any particular thing at certain prices depends from time to time on a number of variable conditions; and it is possible that owing to a change in some of these conditions more may be demanded at a higher price or less at a lower price. At the same time, however, and under certain conditions, the general law holds good that the quantity demanded rises and falls with every fall or rise in price, and therefore that it is only through an operation on price that the quantity will be increased or diminished.

§ 3. *The Law of Supply.* The law of supply in its general form is the exact counterpart of the law of demand. Demand and supply are in fact reciprocal and correlative. Demand without supply is purely hypothetical; supply without demand is beyond the sphere of value.

The law of supply may first of all be stated without any reference to production, just as the law of demand is stated without any reference to the ulterior uses of the article when purchased: *As the price rises (other things remaining the same), the quantity offered for sale increases, and, conversely, as the price falls the quantity offered decreases.* As before also the supply may be said to vary in elasticity according to the greater or less effect of small changes in price.

This law of supply is exemplified in every market. Supplies are adjusted in response to movements in prices. As the price of an article falls, sellers withdraw to some extent their offers; they begin to look to the future or to other markets. Conversely, as the price rises more and more are willing to sell, they hope it may be to replenish their stocks, and at any rate they have the chance of reaping immediate profit.

Even with things absolutely limited the amount offered

varies with the price, as in the case of building sites or old pictures; although the supply is not capable of increase, the price may rise indefinitely, and as it rises more holders are tempted to sell.

It is not necessary at this stage to consider why the price rises or falls; the point is that, if for any reason it does rise or fall, then, other things remaining the same, the quantity offered also rises.

The law of supply is as wide in its application as the correlative law of demand. A rise in the wages of any form of labour so far tends to attract labour to that employment, whether the labour be carrying golf clubs or electric engineering. The rise in price of any commodity (*e.g.*, copper) induced by a syndicate draws out old stocks and also tends to increase production.

But without considering production either of immaterial or material wealth, the law of supply like that of demand may be said to rest on a general principle found in the nature and uses of money. Not only are all profits on investments limited, but the desire to increase them is practically universal. A rise in the price of any thing means a possible gain to some one, and some one will be disposed to take the profits either to spend or to save. In the same way people will work harder and longer for more pay. It may be that some will not, but so long as any do the supply is increased. One of the most extraordinary examples of the effect of this love of money is in the supply of native labour, as shown for instance in many parts of Africa. No one who has seen Zulus running in rickshaws or Kaffirs unloading a vessel can doubt the application of the general law of supply even in undeveloped countries.

§ 4. *On Changes in Supply.* By an increase in supply we mean that a greater quantity will be offered at the same price. Conversely, by a decrease in supply we mean that less is offered at the same price. It must always be remembered, just as in demand, that supply

varies with the price; it is only in exceptional circumstances that all the supply is offered without reserve.

Changes in supply are precisely analogous to changes in demand, and, *mutatis mutandis*, may be considered under the same headings.

(1) *The Use of Substitutes.* A fall in the prices of possible substitutes for a thing may induce people to accept proportionately less prices for that thing. They must submit to a corresponding fall in order to get rid of their stocks.

On the other hand, a rise in substitutes will make holders reluctant to sell except at higher prices. Again, as in the case of demand, we have a partial explanation of the sympathy of markets, and also of the greater or less elasticity of supply under various conditions affecting substitutes as well as the thing itself.

(2) *Indirect Uses.* If, owing to changes in the supply of other things, additional employment is found for the thing in question, the holders will again refuse to sell except at a higher price. It is clear that those who wish to sell are guided in what they will accept by considering how much they are likely to get. Thus, again, we see the reciprocal action of demand and supply.

(3) *Changes in Income.* The amount which sellers will accept obviously depends partly upon their needs. A decrease of income, or more generally of means, makes people more willing to sell. Thus in commercial crises, when credit is speedily exhausted, sales are forced. Similarly in labour disputes or the shrinkage of strike funds the labourers are willing to sell their labour at a lower price. Conversely, when sellers have abundance of money in reserve they may only be induced to sell at a higher price.

(4) *Supply and Utility.* Variations in the utility assigned to things by possible purchasers will be taken into account by the holders of commodities, and they will alter the prices of their wares accordingly — another example

of the reciprocal action of demand and supply. The same reasoning applies to the choice between present and future uses.

The relative importance attached to the immediate and the deferred use of the commodity varies according to different conditions, and produces a corresponding change in the supply of commodities. The supply will be adjusted to the demand present and prospective. In some cases the thing may deteriorate, in others it may improve by keeping, but, other things being the same, a higher price will be required for future payment and commodities will not be reserved unless such a rise is expected. Thus any change affecting the certainty direct or indirect of obtaining the higher price at the later date will affect the supply offered in the present.

Thus it is clear that (as with the quantity demanded) the quantity offered of any particular thing depends from time to time on a number of variable conditions, and it is possible that, owing to a change in some of these conditions, more may be offered at the same price or the same amount at a lower price. At the same time, however, and under certain conditions, the general law holds good that the quantity offered rises and falls with every rise and fall in price, and therefore that it is only through the operation on price that this quantity will be increased or diminished.

So far it will be seen that the law of supply is exactly similar to the law of demand. And the resemblance may be carried to a further degree. Just as the final cause of demand is utility — as the purchaser compares the utility of his acquisition with utility of the money spent, and goes on spending so long as there is a favourable balance, so also the final cause of supply is utility, and the seller parts with his commodity so long as the money obtained affords him directly or indirectly greater utility.

At this point, however, the principal difference emerges. As regards the ulterior causes and effects, in demand the

emphasis is laid on the utility of a thing; in supply on the difficulty in its attainment. Accordingly, the further elaboration of the law of demand naturally leads back to consumption, whilst that of supply leads back to production. For the reasons already given I do not propose to consider more in detail demand as dependent on utility. The treatment of supply in relation to production, and, conversely, of production in relation to value, will be best taken in hand after the consideration of the equation of demand and supply.

§ 5. *The Equation of Demand and Supply.* If we combine the law of demand and the law of supply as described in the last section, we arrive at the equation of demand and supply, which may be formally expressed: "In any market the price will be so adjusted that the quantity demanded will be exactly equal to the quantity offered at that price. The force by which the adjustment is made is competition." Stress must be especially laid on competition in order to avoid the superficial criticism of Cairnes to the effect that the equation only amounts to the obvious truism that the quantity bought at any time is equal to the quantity sold. The influence of competition is perhaps best brought out in the following statement: "In any market at any time competition will go on between buyers on their side and sellers on their side until such a price is obtained that the quantity demanded is equal to the quantity offered at that price."

This equation — or, as Professor Marshall prefers to call it, temporary equilibrium — of demand and supply depends upon the assumption underlying the separate laws of demand and supply, namely, that with every variation in price more will be demanded and less offered (and conversely), so long as the conditions affecting the demand and the supply remain the same. If sellers ask for a price greater than that given by the equation, this higher price will at the same time check the competition of buyers and stimulate that of sellers, whilst on the other hand, if

buyers offer less than the equation price the converse will ensue. In the first case there will be unsatisfied supply, and in the second unsatisfied demand, and the competition that naturally arises will tend to bring the price to the point at which the demand and the price become equal.

Such is the general reasoning on which this fundamental law of market values depends; but it seems desirable to make explicit certain further assumptions that are actually made, and to guard against the introduction of other assumptions which at first sight seem equally justifiable.

(1) We do not suppose, then, that there is in the market a certain quantity that must be got rid of at any price; on the contrary, we assume rather that up to a certain price none will be offered, and that the amount will increase after this point with every rise in price. If, as occasionally happens, the whole supply must be got rid of, then the actual price depends on the demand. If too low a price is fixed on, there will be unsatisfied demand, and if the price asked is too high, some of the stock will remain unsold.

(2) Similarly, as regards demand, we do not suppose that people come determined to get a certain quantity at any price. If such an exceptional case does occur, the price will depend entirely on the competition of sellers.

(3) We suppose, on the contrary, that both demand and supply vary with the price according to certain conditions which prevail at the time and during the market may be supposed to remain unchanged.

(4) We assume that all the sales will be effected at the *same price;* in the words of Mill, that we are considering wholesale markets in which "the axiom is true that there cannot be for the same article of the same quality two prices in the same market."

But this assumption is by no means axiomatic, or indeed so simple as at first sight appears.

According to the general law of demand, some people

are willing to buy a certain amount at a very high price — it may be much higher than would satisfy the most reluctant seller. Why then should these people not immediately take what they require from the first dealer at any price he chooses to ask?

Again, some sellers would be willing to sell at a much lower price than that finally determined by the equation of demand and supply, and the question arises, Why do they not at once sell to the first bidder?

That is to say, putting together the two considerations, why should we not have a series of bargains all different?[1] Why should the eager buyer and the eager seller wait until their more reluctant neighbours have made up their minds? What are the reasons?

In the *first* place, however much a man wants to buy a thing, he prefers to get it at the cheapest rate, and if he wants to sell a thing he sells it as dear as possible. Accordingly, in either case he will look round and observe the conditions of the market. *Secondly*, there is competition on both sides. If any one in his haste offers a high price, there will be a rush of sellers to supply him; if any one offers supply at a low price, there is a rush of buyers to get it. *Thirdly*, in the markets under consideration the prices at which sales are actually made and the general conditions affecting demand and supply are equally well known to all the dealers — buyers and sellers alike. On the stock exchange, for example, the record of prices and the general sources of information are open to all.

The nature of the assumption involved in the equality of prices in highly organised markets may be illustrated by considering the opposite cases of undeveloped and disorganised markets. In the bazaars of the East bargains are at the same time effected at very different prices, and in sheep and cattle fairs the actual sales often vary considerably from the average. Even on the stock exchange, in the more speculative securities there are rapid move-

[1] As in a Dutch auction.

ments, which are mainly due to the fact that knowledge of various kinds is not equally disseminated. In times of commercial crisis and panic widely different prices prevail at the same time, and at short intervals there are still wider differences.

Finally, it may be said that the very phrase, higgling of the market, suggests a series of unequal tentative bargains. An eager buyer bids too much — more than he need — and at once other sellers offer at a lower rate, or an eager seller offers below the common rate, and at once demand leaves his competitors and flocks to him. Thus within the market, as sales are known, buyers go to the cheapest, and sellers to the dearest quarter, until by their competition an equilibrium price is obtained; or, more strictly, all the possible bargains are made.

§ 6. *The Immediate Effects of Changes in Demand and Supply upon Price.* So far we have supposed that demand and supply are dependent on price, that we can state the variations that will ensue if any difference is made in the price, and in this way estimate the equilibrium price so long as the conditions remain the same. In mathematical phraseology, we have considered both demand and supply as functions of the price.

We have now to consider how changes in demand or in supply, or in both, operate upon the prices of commodities.

This leads to a second or converse statement of the laws of demand and of supply. If demand increases, supply remaining the same, the price rises; and conversely, if demand decreases the price falls. Again, if supply increases, demand remaining the same, the price falls; and conversely, if supply decreases the price rises. It is easy to see that if both increase or decrease together the effect is indeterminate; the price may be unaltered, or according to the degree of the change in either case may rise or fall. It follows at once that demand increasing and supply decreasing, *à fortiori* price rises; and conversely, demand decreasing and supply increasing, *à fortiori* price falls.

Thus, following on any change in demand or supply, the immediate effect is a change in price unless they happen to counterbalance. All the cases follow from the general principle. A rise in demand means that people will take more at that price; therefore, unless the price varies (supply remaining the same) there will be unsatisfied demand, and the competition of buyers will raise the price. Similarly, as increase of supply means that people will sell more at that price, therefore, until the price falls there will be unsatisfied supply, and the competition of sellers will bring about the fall.

All these changes in price are, however, market or immediate changes, and they will have ulterior or indirect effects upon the supply. Accordingly, in the next chapter, I shall examine the ulterior effects of an increase in demand or supply upon the cost of production and thus upon the ultimate price.

The argument of this chapter may be illustrated by means of very simple graphs, and there can be no question that it gains much in precision and brevity. The danger is that the very simplicity of the curves is apt to make us overlook the complexity of actual conditions. It is clear that as regards any commodity the immediate effect of a change in price upon demand and supply is very difficult to determine beforehand even roughly; but every curve we draw assumes that for the smallest change in price there is a corresponding determinate change in the quantity demanded and in the quantity offered.

## CHAPTER V.

### OF COST OF PRODUCTION IN RELATION TO VALUE.

§ 1. *Of Market Prices and Normal Prices.* In the preceding chapter it has been shown that in any market the price will be so adjusted that the quantity demanded will equal the quantity offered at that price; and further, that any change in the conditions of demand and supply will cause a change in price (unless the changes in question happen to counterbalance). When we pass in review the changes that are constantly taking place in the modern industrial world, it may seem at first sight that we cannot get beyond these very general statements. But a closer inspection shows that this is not so. We observe that market prices oscillate between certain limits, and that exceptionally high or low prices are very unstable. We observe also that in spite of market fluctuations the relative values of important commodities may on the average remain fairly constant over a long period. Further, if in the course of time a change occurs in the average of market prices, or in the relative values of commodities, we are not in general content to ascribe such changes to chance or fashion. On the contrary, we suppose that prices, like other phenomena, are subject to laws, and that these laws are discoverable. There are causes which determine the averages of market prices and also their relations. Some of these causes are of such a general character that they fall to be explained by the economists, whilst others are special and technical, and must be left to dealers in the commodities.

The older economists considered certain prices as "natural," thus really implying that they were governed by "laws of nature," but the ambiguities of the term "nature" have led to the substitution of the term "normal." The word "norma" properly refers to the square used by masons and carpenters, etc., and thus a thing may be said to be in its normal position when no change will be made; that is to say, the normal position is the stable position, or it is the position to which the workman will try to adjust his work. And similarly, by normal prices we mean the comparatively stable rates about which the market rates oscillate, though these normal rates are themselves also subject to change.

The *normal* rate is not necessarily the *average* rate. An exceptionally high price for a short time may be followed by low prices for a very long time, and conversely. All that we mean by normal price is such a price that any divergence from it brings into play forces which make it move in the direction of the normal.

Nor, to anticipate a little, is normal price always the same thing as cost of production price. We may fairly say that the normal price of any strictly monopolised article is such as to give its owner the maximum profit obtainable under the circumstances. This will in general be above the cost of production rate, and unless the monopolist is absolutely fortunate and perfectly wise, this normal will always be above the average of the prices actually obtained.

Again, we may speak quite correctly of normal rates of wages, profits and interest, but it is straining language to say that these rates correspond to the cost of production of labour and capital.

Finally, the distinction between normal and market prices does not necessarily imply a difference in time — in other words, we need not assume that a longer time is necessary for the normal prices to reveal themselves than is required for market influences. If we make a survey of any great industrial country at any time, we

may say that trade is in a normal condition when it is neither unduly inflated nor depressed. Further, we may say that in this case the average of commodities is being produced at normal prices; some may be below and others above, but the average is normal. This method of observation perhaps brings out most clearly that in investigating normal prices we are in search of general causes that pervade the whole of industry. In this sense we may say that the law of demand and supply is the normal market law which prevails unless the markets are disorganised.

The influence, however, of cost of production on the prices of commodities the supply of which can be increased in response to an increase in demand, is undoubtedly one of the most important problems of normal value and requires careful examination.

§ 2. *Meaning of Cost of Production.* In considering the relation of Cost of Production to Value it is best, at any rate in the first place, to take only material commodities which are continuously being produced and consumed, such as the various forms of raw material, of auxiliary capital, and of manufactures.

The field of inquiry may be further narrowed by supposing that the commodities are produced under a system of free competition (thus for the time excluding monopoly and partial monopoly), and under a system in which the owners of capital take the direction and employ hired labour with the object of making a profit (thus excluding some forms of co-operation and of small industries). It is obvious that in such a country as Great Britain the greater part of the material production comes under the conditions laid down; and it has long been held that the normal values of the commodities in question depend upon their cost of production, which again operates in different ways in different cases.

Before considering these modes of operation it is necessary to analyse the conception of cost of production. Since Cairnes unjustly accused Mill of confounding nomi-

nal and real cost, economists have taken pains to make the distinction quite clear. By production, as already explained, they mean putting utilities into things, and by the real cost of production they mean all the disutilities involved in the process.

In the last resort nothing can be produced without the aid of the gifts of nature, capital and labour. The gifts of nature, *qua* nature pure and simple, only require appropriation, so that we need only refer in the search for the disutilities of real cost to labour and capital. Labour involves all the disutilities that go to make up a quantity of labour in the subjective sense; and capital those implied by the terms sacrifice, abstinence, waiting, management risk, and the like. These elements in real cost have already been examined in the previous books.

It is perfectly obvious that in estimating the costs of production of various things we cannot add together and compare these infinite varieties of disutilities. We must in some way pass from the subjective to the objective standpoint.

Accordingly the next step taken was to assume, as was implicitly done by Mill, that we can take the money measures of these real costs. It was assumed, therefore, that in a system of money wages and profits labourers and capitalists will not suffer the disutilities of the real costs unless they obtain a money reward proportionate to their efforts. It is no doubt a necessary condition of the continuous production of a commodity that those engaged in the various processes must obtain the normal rates of wages and profits for the real toil and trouble involved. But as already shown, it is by no means the case that these money rewards are proportionate to the disutilities incurred. Nothing indeed could be further from the truth than to say (even leaving out of account the scarcity value of the natural elements requisite) that equal money costs involve equal real costs. Consider only the labour involved. Wages reckoned in money may be

looked at from two points of view, that of the labourer and that of the employer. The labourer looks to the real reward for the injury to his feelings, but the employer pays wages for the work done and looks to the efficiency of the worker.

It is plain, however, that the same efficiency wages do not represent the reward for the same or equal disutilities; in some cases the most badly paid labour is the most intense and disagreeable.[1]

It appears, then, that it is not correct to speak of the Money Cost as the measure of the Real Cost. The disutilities involved in the real cost assist, it is true, in determining the money rates of wages and profits, but they assist only. Money cost does not mean payment for feelings but for work. If a manufacturer finds that a machine will do the work of twenty labourers at less money cost, he will promptly take the machine without feelings and dismiss the labourers; he will produce as cheaply as possible; he will act according to the "law of substitution." And similarly as regards profits, a machine or a building is looked on for its share in the product, not for the feelings of its original producers.

Accordingly in considering cost of production as affecting the value of a thing, by cost we must mean the money cost of the various materials and agents involved in its production. At this stage it is only confusing to go behind the money to the feelings of the producers. "The House that Jack built" is not a good model for argument.

Our present object is to discover the component elements that enter into cost price, to explain the modes in which they operate, and to show how cost governs normal as contrasted with market values.

§ 3. *The Complexity of Money Cost.* When we look

[1] The argument might be strengthened by reference to the distinction between total and marginal utility (or disutility), but the point hardly needs elaboration.

into the total money cost of any thing, *e.g.*, some article of manufacture, we find that logically we ought to take account of a very large series of factors, each of these factors again being dependent upon other corresponding series. Raw materials must be extracted and transported, factories must be built and equipped with machinery, and operatives must be trained and supported. There are, besides, all kinds of indirect and supplementary expenses, as, for example, the share in the expenses of imperial and local governments, and finally the expenses incurred by the wholesale and retail merchants, if we are to say that production is not complete till the commodity is in the hands of a consumer.

Thus at first sight it would seem that these endless series of money costs are as unworkable as the correlative masses of feelings or disutilities. The answer is that similar difficulties occur in every science that deals with complex facts. The remedies are two-fold. In the first place, we confine the attention to causes of a general character, which are at work in all or most cases. We are concerned with the great forces pervading industry as a whole, and not with the details of particular businesses. Secondly, we neglect or leave out of account the effects of these forces if below a certain magnitude. An illustration may be taken from statistics. For certain purposes, in making rough estimates of natural wealth, we might leave out items below £100 millions; for other purposes a difference of $\frac{1}{32}$ part of a penny in a quotation might be of vital importance. For special problems we have to approach nearer and nearer to the special circumstances, but in all cases there are certain general forces at work, and the practical difficulty is to estimate their precise magnitude.

§ 4. *The Component Elements of Cost of Production.* We may now proceed to discuss the elements of cost of production, advancing gradually from the most simple and general, to the more complex and special.

If all things were produced simply by labour of the same kind and efficiency (and the contributions of capital and nature were left out of account), then, as Ricardo pointed out, the relative values of things would vary with the quantity of labour, that is to say, with the number of hours or days of this uniform kind of labour. The labour bill would be all important and of a very simple character.

Now in the most modern societies we may find examples which approximate to these conditions. If two or more things are made by unskilled labour of the same quality, their values depend mainly on the amounts of labour involved.

In this case we might argue (as Ricardo does) that the rate of payment is of no effect, the decisive consideration being simply the quantity of labour involved. If money wages rise or fall there is so far no disturbance of relative values; if the nominal prices of two or more things are precisely doubled or halved, their rates of exchange are still the same.

It would thus appear that we might leave out money altogether and say that values depend only upon the quantity of labour. But it is easy to see that hours and days can only measure labour of a simple uniform character; as soon as we introduce differences in kind and efficiency we must resort to money as the common measure.

Again, it is no doubt true that capital may be regarded in a sense as the product of labour, and we may say that the values of two machines or buildings will depend, partly at any rate, on the hours of labour directly and indirectly involved. But as before, differences in kind and efficiency make the introduction of money necessary even to measure the amount of labour, or rather of work.

We are thus led to the conclusion that the first element to be taken into account in calculating the relative money costs of things under complex division of labour, is the amount of wages which must be expended in their pro-

duction. This can be estimated with more or less accuracy according to the distance we go back, but the corresponding "quantity of labour" is from the first indeterminate.

Again, though for certain purposes capital may be regarded as the result of labour and profits as a species of wages, for the present purpose the conversion of capital into labour and profits into wages can only be misleading.

On the other hand, it seems best to state definitely that in the kind of production under review capital is as essential as labour, and if the production is to be continuously carried on the price must cover profits as well as wages. Thus the second universal element in relative costs is the profits on the capital employed. It is also obvious that capital is itself the result of former capital just as much as of former labour, and we might carry back the element of profits just as we do that of labour.

We may observe, thirdly, that not only must capital earn profits, but — if production is to be kept in a normal state — the capital must be renewed and the wear and tear made good.[1] Here, too, the renewal must be carried on through the whole series of the various forms of capital required.

Finally, we have to take into account the expense of the raw material, and again through the whole series of the factors of production. This expense may be resolved partly into wages and profits and renewal of capital, but logically it is best to consider the element of nature apart from the other two great agents in production. Accord-

[1] It may be said that similarly the labourers must be renewed and kept efficient, but in a state of freedom the supply and efficiency of labour depend only partly upon the rate of wages ; and the labourers see to their own renewal and repairs, without regarding themselves simply as "animated tools." It seems then sufficient to state, as regards labour, that the normal wages must be forthcoming for continuous production, and in most cases they are fortunately above the bare efficiency minimum.

ingly rent in relation to value will be the subject of special inquiry.

§ 5. *Of Cost as determining Normal Values.* Subject to the conditions and explanations given in the preceding sections, we may say that the normal prices of material commodities are determined by their expenses of production. In order that any commodity may be continuously produced the price must cover the expenses of production indicated in the last section. If the market price falls below this rate the loss falls in the first instance on profits, production is checked, and the diminution of supply tends to restore the price to the normal. Conversely, if the market price rises above the normal, exceptional profit stimulates production, and the increase of supply tends to lower the price.

This adjustment of supply to demand, which is the force that attracts market prices to the normal under modern conditions, is made more speedy and accurate through various influences. In the first place, the auxiliary capital in an industry may be employed at high or low pressure, and the circulating capital may be adjusted by an increase or decrease in borrowing. But secondly, we may observe that in manufactures (in the widest sense) the order system is general. Manufacturers do not, as a rule, turn out as much as they can sell for what it will fetch. In many if not most trades working without orders is a bad sign. Manufacturers receive orders from wholesale dealers, and these again from retail traders, who between them estimate the quantity that will be demanded by the consumer at the cost price. Thus to a large extent the demand directly governs the amount produced at the cost price. Thirdly, it may be observed that in most businesses varieties of things are produced, and some of these are more profitable than others. Some things, to put it otherwise, bear more and others less than their fair share of the supplementary charges. Accordingly an improved demand, instead of raising prices, may

simply alter the proportions of the various qualities. Thus, for example, in the manufacture of paper some kinds are more profitable than others. Again, it is not uncommon for articles to be sold at a lower price for export, and thus an improved home demand may be met without any change of price by a contraction of exports.

Finally, it may be said that the more highly developed the organisation of industry so much more readily and accurately is supply adjusted to demand without any violent or even marked movement in market prices.

It is in raw materials that the greatest fluctuations occur and in which the adjustment of supply is most difficult, and variations in the price of raw materials affect the cost price of manufactures directly and in different proportions, and thus what may appear to be a market fluctuation in the price of the completed product due to a change of demand is only an instance of a change in one of the elements in its cost.

At the same time, however, after all allowances have been made for modes of adjustment, changes in demand may occur, which by re-acting upon supply may lead to a change in the normal price.

Changes may also occur in the conditions of supply which directly affect the cost of production and thus the normal price. The effects of changes in demand and supply upon normal values will occupy the next chapter.

§ 6. *The Case of Joint Products.* It may happen that two or more things must always be produced together, or that it would be no more expensive to produce two or all than any one of them, *e.g.*, beef and hides. In this case the law of value is that the normal price of the two together is determined by the aggregate cost of production; and that the relative prices of the joint products, or the distribution of this aggregate between them, depends upon the demand and supply. Thus in some countries, as Adam Smith remarks, the value of the carcass may be nil and an ox may be slaughtered for its skin. In this ex-

treme case, it may be said there is really only one product in the economic sense, for the flesh that has no value is simply a waste product. In general, however, both the meat and the hide would be valuable, and the total sales would be such as to make cattle-raising a profitable industry. Suppose, after a condition of equilibrium had been obtained and the cattle trade was in a normal state, there is suddenly a rise in the demand for hides. Then the price rises and with it the total price, and under the stimulus of this exceptional profit production is increased. But there is no reason why a rise in demand for hides should be accompanied by a rise in demand for beef. Accordingly this forced increase of beef will tend to lower its price, and equilibrium will again be restored when the prices of beef and hides together once more equal the cost price. It is not necessary to consider again in detail the different modes in which cost may operate. It is, however, worth noting that in the case of joint products the producer can to some extent modify the supply, increasing the proportion of the more profitable, and conversely. Thus different breeds of sheep have been developed according to the demand for wool or mutton and more particularly different varieties for special kinds of both.

Joint products are more common and important than is often supposed. In nearly every form of production there are products which, at first regarded merely as waste, in the course of industrial progress come to possess value, and as a consequence lower the price of the main or original product.

## CHAPTER VI.

### EFFECTS OF CHANGES IN DEMAND AND SUPPLY UPON NORMAL VALUES.

§ 1. *Effects of an Increase of Demand upon Normal Price.* We have seen that the immediate effect of an increase of demand, the conditions of supply remaining the same, is to raise the market price of the commodity. The ulterior effect upon the normal price will depend upon the conditions of production, and will vary according as the production of the commodity may be classed under the heading of Constant, Increasing, or Diminishing Return.

The case of the law of Constant Return is very simple. As the words imply, the commodity can be increased indefinitely at the same cost per unit if only time is allowed for the increase of the means of production or for the growth of the necessary capital and labour. Theoretically in this case the increase of demand will have no effect on the normal price. The theory is not so remote from the facts as might at first sight appear. It may happen that the growth of wealth and population which gives rise to the increase of demand is accompanied by a growth of those forms of labour and capital that are requisite to provide the corresponding supply. Or it may happen that without any increase of capital and population the gradual increase in demand for the favoured commodity is met by the gradual transference of the means of production from other industries for the products of which the demand has slackened.

The case of the law of Increasing Return is not quite

so simple. In this case it is assumed that the quantity can be increased at a diminishing cost per unit. This is possible in one of two ways. First, with certain given methods of production a large quantity can be produced at a lower cost per unit than a small quantity. As examples we may take books or particular patterns or qualities of cloth. An increase in the demand for a book in which there is no copyright and thus no monopoly will lower its price, even if we suppose that there are no improvements in the arts of printing, binding, and publishing. Secondly, however, the diminishing cost may arise because a larger production admits of different and more economical methods, as by the extension of division of labour or by the introduction of new motive powers or machinery.

In either case, however, the normal price falls with the diminution in the cost. Those who are first to recognise the increase of demand and to adopt the economies of larger production may for a time gain exceptional profits, but competition (and the fear of it) soon reduces them and the full benefit is transferred to the consumer in a fall of price.

The same influence of competition drives out the inferior or less economical methods of production. There is a survival of the fittest. If those methods are for a time employed there is a loss of profit; as capital is worn out it is not replaced and in the end the labour bill cannot be met.

Thus, in this case we may say with truth that the *cheapest* method determines the price, and the tendency is for all producers to adopt this method. For a time the inferior methods and machinery may continue to be employed, but they cannot command the old prices. It follows then that if time is allowed for this substitution of methods and the general adoption of economies, the commodity may again come under the law of uniform cost or constant return.

Thus it is only during the process of transition that the costs of production are different and the cheapest determines the price; when the transition is complete all the methods employed are of this improved type.

Lastly, it may happen that the increase of demand can only be met at an increasing cost, the commodity being produced according to the law of Diminishing Return. In this case the peculiarity is that the commodity is continuously and permanently produced at different costs, and the most expensive method is still necessary to furnish the supply. Accordingly the most expensive portion determines the price, and the permanent profits on the less costly methods constitutes economic rent.

It will be seen then that the so-called law of increasing return cannot be considered in its relation to value as the analogue of diminishing return. The differences are fundamental. In the former case the cheapest method determines the price, and the other methods are gradually displaced with a continuous loss to those engaged in them, until finally the cheapest method prevails and the cost becomes uniform. In the other case the differences are permanent and there is a continuous exceptional profit in the form of rent. The connection of rent with value will be considered in a separate chapter.

§ 2. *Effects of a Decrease of Demand.* It seems hardly necessary to describe at length the converse effects of a decrease of demand. It may be necessary to abandon the economical methods of production on a large scale and resort to more expensive methods. We have in fact a reversal of the process of transition in the application of the law of increasing return described in the last section. The things in question become permanently dearer, or their normal price rises. On the other hand, a decrease of demand for commodities which follow the law of diminishing return is followed by a fall in the normal price.

§ 3. *Effects of Changes in the Conditions of Supply.* Changes in normal prices, however, may occur, not indi-

rectly through the operation of an increase or decrease of demand, but directly through changes in the conditions of supply. Suppose, for example, there is an improvement in machinery and that it is quickly and generally adopted. In this case the value of the product will speedily fall to the new cost. How much the supply will be actually increased depends on the demand. It is possible that for a time there may even be an excess of production, so that the improvement may lead to a temporary lessening of profits.

As the converse case to an improvement in machinery we may take the imposition of a new tax. The price will rise and the rise in price will so far check the demand. This check to demand will necessitate a contraction of supply, and according to the conditions of production the normal price will rise by more than the amount of the tax, as in some kinds of manufactures, or by less than this amount, as in some forms of raw produce.

The changes in the conditions of supply, however, which are of most interest and also most difficult to follow to their consequences, are changes in the rates of wages and profits, the universal elements in cost of production. We may say at once that *if* a rise occurs in the normal wages, or profits, or both, in some department of industry the effect so far (in other words, the efficiency remaining the same) is analogous to that of a tax, and conversely, a fall in wages or profits under the same conditions is analogous (so far) in its effect on cost to an improvement in production.

But the difficult and important question remains: Under what conditions can those engaged in any industry take the initiative and raise the rate of profits and wages above the normal rates determined by the competition of the various industrial groups? The general answer is evidently to be found in the position that so far as competition is hindered monopoly is promoted. Prices may rise and remain above competition rates so long as the

sellers have a total or partial monopoly, such as may result from law, custom, or combination. Conversely, prices may remain below competition rates if the buyers have a monopoly such as may result if the demand is regulated by law, custom, or combination.

Before proceeding further, it seems desirable in the next chapter to examine the principles of monopoly values.

## CHAPTER VII.

### OF MONOPOLY VALUES.

§ 1. *Of Monopoly of Supply.* The simplest case of monopoly is when an individual possesses the whole stock of an article and the cost of production is so small that it may be neglected. Take the case, for example, introduced by Cournot, of some natural well having a unique character for its mineral water. The monopolist must in the first place endeavour to find out by experiment the law of demand for the commodity. If he fixes a very high price, he may sell none at all or only an occasional pint to a reckless or deluded millionaire, whilst if he fixes a very low price he may find that at that price he cannot provide the quantity demanded. In the first case he will increase his revenue by lowering, and in the second case by raising the price; and his object will be to discover what price will give him a maximum revenue. In this case the price will be such that the quantity sold multiplied by the price per unit will be a maximum.

Even this simple case, however, presents difficulties. In the first place, although the monopolist sells to all customers at the same price, it is theoretically possible that two or more fixed prices might yield practically on the average the same return. The revenue of a year with a high price and a small quantity might be exactly equal to that of a year with a lower price and a larger quantity.

Again, it is also possible and indeed probable that the maximum revenue would be obtained by fixing different

prices for different classes of consumers. The price charged might vary according to their wealth or apparent "capacity to pay," and it might also vary according to their ailments or apparent "desire to possess." If the monopolist were perfectly acquainted with all the circumstances he would obviously gain more by a series of special bargains than by fixing a uniform price calculated on the basis of an average demand.[1]

In fact, it may be said that just as perfect competition (implying *inter alia* full knowledge of demand and supply) leads to equality of prices in the same market at the same time, so perfect monopoly (implying similar knowledge) naturally leads to differences of prices. This tendency to different prices is well exemplified in the partial or temporary and local monopolies of retail trade, and it is perhaps worth noting that, according to the doctrine of marginal utility and maximum satisfaction, the retail trader (like the monopolist) might promote his own advantage and also that of the public by charging two or more prices for the same quality of article.[2] Monopolists, however, like other merchants, are not supposed to trade for the public good. On the contrary, the fact that monopolies tend to differences in price and that this is in general an evil is so well recognised that it is the principal economic basis of the regulation of monopolies (so far

[1] If we disregard ulterior consequences it might be best for the monopolist to go even further and make a series of bargains with each purchaser, selling one unit at the highest price possible, then another at the next, and so on.

[2] Suppose the cost of the article to the trader was 1*s*. If he sold 20 at 2*s*., and 10 at 4*s*., he would make a gain of £4 less 30*s*. cost, *i.e.*, £2 10*s*. If, however, he fixed his one price at 3*s*., he might only sell 15, which, less cost, would give a gain of £1 10*s*. only. At the same time it might well happen that the reduction from 4*s*. to 3*s*. would represent a very small gain in utility to the richer classes, whilst a rise of 1*s*. above 2*s*. would certainly involve a greater loss of utility to the poorer classes. Of course, in this example, only the direct and immediate effects are considered. His custom might suffer if his practice were known, and his morals if it were not.

as they are allowed) by government. The monopolist is not allowed to adjust his prices to exceptional needs. Thus railways are supposed not to give differential advantages to traders or localities, and cab-fares and fees for services of various kinds are fixed on the same principle. It may be observed, however, that in general railways have many opportunities of varying their rates according to circumstances, and abundant examples might be given where for the same service different rates are charged.[1]

§ 2. *Monopolies and Cost of Production.* In the example just taken it was assumed that the cost of production might be neglected, but in general, as shown in the case of railways, the expenses of working or management must be taken into account. The monopolist will have to consider not only the law of demand (or the laws of demand), but also the conditions of production.

If the expenses of production are fixed independently of the quantity, they obviously also fix a minimum below which the aggregate normal price cannot fall; but apart from this limiting price the price will depend on the demand. The monopolist is in the position of a merchant who has paid for goods and is obliged to sell them for what they will fetch; the cost has no bearing on the price except that if not obtained the merchant will not repeat his bargain, and the monopolist will not renew his supply. In general, however, the cost of the monopolised article will vary with the quantity produced, and the calculation of the maximum net profit must include the cost as well as the demand. The general economic principles applicable to the case have already been examined. If, for example, the supply can be increased at a diminishing cost per unit, still the additional supply can only be got rid of at lower prices, and the total cost of an increased supply is of course in this case greater,

[1] See the works of Hadley and Grierson.

although the cost per unit is less. How far in any case it will be advantageous to carry production can only be shown mathematically.

Suppose, next, that having regard to the demand and the conditions of production, the monopolist has discovered the price or prices that will yield a maximum net profit. Now, demand remaining the same, let there be an increase in the cost. The question arises, Can the monopolist advantageously change his price? If the quantity is independent of the cost, as before, the cost only fixes the minimum. But if the cost varies with the quantity, then as he diminishes the quantity he so far diminishes the cost, and also he can get rid of this smaller quantity at a higher price per unit. His revenue must in any case be lessened, but his loss may be less if he raises his price and diminishes his sales. To take an extreme case, suppose a tax were imposed exactly equal to the original price per unit, as fixed by the monopolist. In this case, if the monopolist were still to sell at the same price, he must obviously lose the whole expenses of production, as the returns would simply pay the tax. If, however, he were to raise his price (say) by the amount of the tax, although the demand fell off considerably he would still gain on every unit sold the same net return per unit as before.[1]

§ 3. *Monopoly and Competition Prices compared.* It has been shown above that just as competition tends to equality of prices monopoly tends to inequality. This contrast, however, only holds good under normal or stable conditions, and with the further assumption as regards the monopolist that he can discover and put into effect a scale of prices which will give a maximum return. More-

[1] This simple case assumes, of course, that the cost of production is uniform per unit, whatever the amount. Most of the problems in monopolies which go beyond the illustration of general principles, involve mathematical, rather than economic, difficulties. *Cf.* the treatment by Professor Marshall, Professor Edgeworth, and Cournot.

over, in certain cases monopoly prices are more steady and uniform than competitive prices. Any change of conditions under competition at once leads to a change of prices, and competitors are constantly striving to undersell one another. In some cases the object is to drive the weaker competitors from the market, and in this case competition may lead to sales below cost price. If this is followed by a union of the stronger dealers or producers they will for the time obtain a practical monopoly. They must obviously agree to sell at the same price, and probably they will find it convenient to fix a price for a considerable time. Thus it may happen that the substitution of monopoly for competition may tend to steady prices and to make them uniform.

Again, under ordinary conditions the monopoly price would exceed the competition price. The former tends to be fixed above the cost of production price, whilst the latter tends to equality with it. It may happen, however, that the amalgamation of a number of small competing businesses into a large business under uniform control may lead to considerable economies, and even if the price is fixed above the new cost it may fall below the old. Occasionally also the result of competition is to make the sellers agree to a fixed price or prices, whilst as regards quantity there is no restriction of competition. This is one of the principal causes of the excess of retail over wholesale prices and of their comparative fixity, as well as indirectly of the waste of labour and capital through the useless multiplication of businesses. Competition of this kind keeps prices higher and also more uniform than they might be under a monopoly or partial monopoly.[1]

At the same time, however, an appeal to experience shows that in general monopolists tend to fix prices even at higher rates than would be really conducive to their

[1] The displacement of small retail traders by large dealers, and these again by co-operative stores, illustrates the ulterior effects of this kind of competition.

own interest. There is always a delusive and attractive simplicity about high prices. Besides, production on a large scale with narrow margins involves greater risk and also greater skill in management. This tendency of monopolists to raise prices and restrict production (or services) gives the other principal reason for governmental control in the interests of the public. It may happen that this control in the end leads to the benefit of the monopolist also. The case of the parliamentary third-class tickets furnishes an instructive example. At first the railways made their parliamentary trains as slow and as inconvenient as possible, whereas experience has proved that this class of business is by far the most profitable of all the passenger traffic, and the more speedy and convenient this service has become so much greater has been the profit.

In certain undertakings it may happen that the best way to promote the public interest is to grant a monopoly to a company. If the capital required is large, and the expected returns moderate, and the risk considerable, a stimulus of this kind may be necessary to start the venture. If, further, the business is from the nature of the case at first experimental and costly, and once established liable to competition from others who get the benefit of this experience for nothing, the case for a monopoly, at any rate for a time, is still stronger. It is in fact the recognition of a species of copyright or patent right in experiments and organisation. Further consideration of the expediency of the grant or assumption of monopolies of various kinds by governments must be deferred to a later stage. Here it is sufficient to note that just as in some cases monopoly may lead to lower prices and to more uniform prices than competition, so also it may in some cases render undertakings possible which under competition would be impossible. Adam Smith went so far as to say that with a few exceptions joint-stock enterprises could only thrive if supported by a monopoly. The benefits

of this stimulus are, however, liable to be exaggerated. Scottish banking made better progress during last century by the abandonment of monopoly than England did by the retention, and the various trading companies which were granted a monopoly for the development of colonies or foreign trade, for the most part failed altogether in their object.

§ 4. *Conditions required to maintain a Sellers' Monopoly.* The effective maintenance of a monopoly in general implies that the seller must be able to regulate both the price and the supply. If he only regulates the price it may happen that the demand at that price, though affording the maximum profit for a time, will lead to an over-production of stock that will eventually destroy the monopoly. This danger is proportionate to the durability of the article, and to the possibility of re-making old materials as in the case of copper. The monopolist may still have command over the new supplies, but if the old supplies are sufficient to lower the price the monopoly becomes, at best, only partial. As an example that is not quite so obvious we may take the case of inconvertible notes. They may be issued, as by the Bank of England during the restriction, only on first-class securities, at a minimum rate of interest, and for the time being they may not become depreciated, as they correspond to an effective demand for currency. Eventually, however, as the quantity issued is increased the power of the issuers in regulating the value disappears, and to maintain their price they must again get command of the supply by contracting the circulation.

The regulation of the supply of any commodity, to be really effective, involves also the regulation of possible substitutes. The same principle is involved as in the taxation of commodities; in order that one tax may be productive all possible substitutes must be taxed. This brings into view one of the principal objections to monopolies, *e.g.*, patents of invention. The successful patentee may forestall by a very short time a number of similar dis-

coveries which, if his patent is to be effective, must be suppressed.

The maintenance of the real benefit of the monopoly also involves the power of adjustment of price and supply to any change in demand. The monopolist, in the face of a fall in demand, may, indeed, maintain his minimum price, but in most cases he will no longer obtain the maximum return possible, and in some cases the maintenance of the price might involve an actual loss. Again, he may continue to turn out the same supply, regardless of the fall in price, and thus lose his reward. It follows, then, that things for which the demand is variable and the supply not capable of ready adjustment are not fit subjects for monopoly.

§ 5. *Monopolies and Combinations.* In modern times some of the most important monopolies derive their exclusive power, not from government charters, but from the voluntary combinations of individuals. Monopolies of this kind are difficult to maintain, for various reasons. If the price of the commodity is fixed above the competition rate there is always the danger of competition from without. This external competition is especially to be expected if the commodity enters into foreign trade, as in the case of coal and minerals generally, and agricultural produce. There is the further danger of competition from within. Any one producer by lowering his price may obtain a larger share of the trade, and the price may be really lowered by various devices, though ostensibly the regulations are not infringed. According to the mercantile law of this and probably of most countries, no legal penalty can be enforced for the breach of any contract or agreement that is in restraint of trade. These voluntary combinations depend for their maintenance either on *esprit de corps* and the substitution of class interest for self interest, or on the lively appreciation that the best way to secure one's own interest is to honestly abide by the agreement. There are, further, various social sanctions of a less healthy

and robust character, which in many cases have called for legal repression or regulation.

The effects of combinations of capital and labour on profits and wages will be considered in the next chapter.

§ 6. *Buyers' Monopoly.* There remains to be considered the case of so-called buyers' monopoly, the case in which the whole effective demand for any commodity is on the part of one individual, or of a group of individuals acting in concert. In such a case, if sales are to be effected at all, the sellers must submit to the buyers' terms. The only limits to the fall are to be found in the expenses of production of the commodity, or in the possibility of its adaptation to other uses. If the means of production are to a great extent fixed and specialised, if a reduction of supply cannot be effected without serious loss, and if other uses are limited, a buyers' monopoly may keep prices below the natural competitive rates for a considerable time.

Again, if the commodity is such that its normal price depends mainly on scarcity or on a sellers' monopoly (and not on cost of production), a buyers' monopoly may keep down the price so long as the buyers maintain an effective combination. Customary rents and other customary prices are maintained principally through a tacit combination on the part of the hirers and purchasers respectively not to offer more. In some cases it is considered immoral, or at least dishonourable, to offer more than the customary rate, in order to displace a former offer. The penalty for ousting a sitting tenant by offering a higher rent has in our own time been boycotting of the most severe kind, and even death.

The most interesting cases of buyers' monopoly are found in the case of buyers of labour of various kinds, a subject treated in the next chapter.

## CHAPTER VIII.

### COST OF PRODUCTION IN RELATION TO WAGES AND PROFITS.

§ 1. *Effects of Combinations of Producers against Consumers.* We have seen that, apart from temporary market oscillations which depend upon the actual demand and supply at the time, the relative values of material commodities that are regularly and continuously produced depend upon their cost of production. If this cost — in a state of equilibrium — is not uniform, the cost of the most expensive portion necessary to meet the demand at that price determines the price, the differential profits on the other portions constituting rent. Leaving out for the present this element of rent, the normal values depend upon the various elements of money cost. Of these the universal elements are ultimately the wages and profits requisite to attract the labour of all kinds and the capital of all kinds in the various processes necessary to keep up the supply.

Thus the demand governs the *extent* of the production and the conditions of supply govern the *cost* or the normal price per unit.

But now two questions arise: First, if the normal price of a thing depends upon the money wages and profits which its series of producers must receive, cannot the producers raise the rates of all or some of these elements of cost against the consumers? Secondly, cannot some of the producers raise their remuneration at the expense of the other producers, the total cost remaining unaltered?

In answer to the first question, it may be replied that any rise in the price, other things remaining the same, would so far check the demand, and therefore so much as before could not be sold. Thus the policy might be at once suicidal — the total earnings of the group being lessened. It is, however, possible, as shown in the theory of monopolies, that the rise in price might more than compensate the falling off in quantity, so that the total earnings of the producers would increase. This is the contention of those who advocate a *restriction of output* as a remedy for low wages and profits.

But whatever the effect on the total earnings might be, the diminution of supply would in general involve a corresponding diminution in the amount of labor and capital required. Therefore, although higher rates may be obtained, full advantage of the rise cannot be obtained unless the surplus labour and capital are withdrawn. If, for example, the same number of labourers is employed as before, although they obtain higher rates (and possibly higher total earnings) they must work shorter hours or less days or in some way do less work. Similarly, the fixed and specialised capital must be diminished or worked at a lower pressure. But the natural tendency of the rise in the rates of earnings is to induce the producers to increase their production. There will at any rate be keen competition within the group to obtain as much employment as possible, and the restriction of output will involve great difficulty in its apportionment. Thus, instead of labour and capital being withdrawn, they will not only remain, but constantly endanger the policy of limitation by seeking to get the full advantage of the higher rates. And we may go further and say that under the stimulus of the higher earnings there will be a natural tendency for the labour and capital within the group actually to increase. The begetters of the little increments of population and of capital will be loath to send them into less favoured industries.

But besides the dangers of competition from within there are the dangers of competition from without. The rise in rates, so far as operating on earnings, will tend to attract additional labour and capital to the industry. The rise in the prices of the product will encourage importation, stimulate the discovery and use of substitutes, and promote economies in consumption.

The difficulties in the way of a successful combination of producers against consumers seem still greater if we remember that in modern industry most forms of production are extremely complex, and involve a long series of factors. In most cases, if not in all, it would be strictly impossible to make a combination of all the producers. Even in the extraction of minerals a large amount of auxiliary capital is required, as well as many different forms of labour.

On the other hand, however, this very complexity and interdependence may seem to give greater power to a combination which can control any one essential factor. A considerable rise might take place in the price of this factor with a comparatively small effect in the price of the finished product. A rise in the wages of all engaged in the extraction of minerals might raise prices almost in proportion — but a rise in the wages of one class only, *e.g.*, the carters, would have a comparatively small effect. Again, a small rise in freights might have little effect on the magnitude of our foreign trade, whilst increasing the earnings of the shipping trade considerably.

But there are always two dangers ahead of such combinations, — the danger of substitution and the danger of imitation. A factor of production may indeed be essential, but as a rule it only takes time to provide a substitute, and the higher the price of the factor rises, so much greater is the stimulus to substitution.

The danger of imitation is still greater. If this policy of monopoly were for a time successful in one industry, the sincerest flattery would be bestowed upon its method,

and, in the end, in place of competition we should have a vast number of monopolistic groups. Thus the general result would be a restriction of production on the whole, a lessened real national income, and consequently on the average a lessened real increase of the various classes. It must never be forgotten that the mass of producers form also the mass of consumers, and to benefit producers generally at the expense of consumers generally is like transferring money from one pocket to another, and dropping some of it in the process. The best illustration of this growth of monopoly by imitation is afforded by protective duties. One duty leads to another until all industries are protected, with the general result that the real productive powers of the society are lessened.

§ 2. *Combination of Labour against Capital.* Suppose, next, that the labourers in any industry, being aware of the danger or impracticability of raising wages and profits conjoined at the expense of the consumer, attempt to raise wages at the expense of profits. In this case, as far as the attempt is successful, labour is attracted but capital is withdrawn and repelled, and thus again there is a limitation of employment. It may be rejoined that capital in this industry, being more or less specialised and fixed, cannot leave the business, and that therefore a really effective combination of labour would have a buyers' monopoly against the use of this capital. It is plain, however, that if profits suffered severely the capital would at any rate not be renewed to the same extent, and as much as possible would be transferred to more profitable employments.

This possible transference leads up to the further suggestion that if the workers in every industry took similar action no capitalists could gain by transfer, and thus that general wages would rise at the expense of general profits. This argument is strengthened by the fact that if the combination of labour were universal and the rise general the capitalist could in no case obtain cheaper labour,

nor would there be any displacement of labour, it being assumed that the attractiveness of all employments has been equally increased.

With effective combinations of labour such a general rise of wages at the expense of profits is theoretically possible. Taking a broad view of production and income there seems no reason why the return to one great agent — labour — should not rise at the expense of another. The tendency of profits to a minimum, or the progressive fall in profits, so far involves, that is to say unless counteracted, a corresponding rise in wages.

But it does not follow that what is theoretically possible is actually practicable. A rapid increase of capital may both theoretically and actually raise the rate of wages generally and depress the rate of profit, but it does not follow that a rapid succession of strikes would have similar consequences. In the first place, combinations of labour would be met by combinations of capital and the latter might prove the stronger.

Secondly, it may be said that a diminution of general profits would check the general supply of capital ultimately if not immediately, whilst on the other hand a general rise in wages would tend to increase the general supply of labour. This argument, however, implies that the supply of labour and capital depends simply on the price obtained for their use, and that both increase with a rise in price and diminish with a fall. But as we have already seen, the growth of labour and capital depend upon many other causes besides the rate of wages and profits. The principle of increase of labour and capital according to price applies rather to the attraction of these agents to particular industries, than to the growth of industry in general.

§ 3. *Combinations of Capital against Labour.* Combinations of capital against labour may be treated in the same manner as combinations of labour against capital. In any particular industry the owners or employers

of capital may combine to secure a buyers' monopoly of labour; they may refuse to pay above a certain rate of wages. So far as this artificial rise of profits is successful, labour is withdrawn or repelled from the industry and capital is attracted. If the labour is of a peculiarly skilled quality the withdrawal may be practically impossible. And in a system of large industries it is obvious that any sudden and complete dispersal of a large body of labourers into other departments of industry is a hopeless remedy against a combination of capital. If farther we assume that combinations of capital are general, such a transfer of labour is even less possible.

Accordingly it is theoretically possible that through combination particular profits may rise at the expense of particular wages for a time, and general profits may rise at the expense of general wages for an indefinite period. But as before, such combinations of capital will be met by combination of labour, and the result will depend on the relative strength of two sets of monopolists.

Again, the supposed rise in profits and fall in wages will so far tend to increase capital relatively to labour, though as before it must be observed that the supply of capital and labour are not simple functions of the price of their use.

§ 4. *Conclusion.* It is thus impossible to determine on general theoretical grounds whether labour or capital is likely to gain most by the method of collective bargaining. It is generally believed by skilled labourers that but for their combinations their wages would be depressed considerably below the natural or normal competition rate, and the history of British industry for the first half of this century seems to confirm this view. Even if we suppose that the competition of employers was unrestrained and effective, it does not follow that under existing circumstances labourers would obtain the best bargain possible by also reverting to competition and abandoning their combinations. A really effective combination of

labour opposed to unrestricted competition of capital would be in the position of an effective monopoly set against an unregulated demand. But the case for labour combination is much strengthened if there are combinations of capital. Free competition of labour against strict combination of capital would obviously depress wages.

If the combinations on both sides are really effective, the result will probably be to secure a rate of wages in any employment that will differ very little from the rate that would be arrived at by the free competition of individuals on both sides. But this will only be true if all the conditions essential to free competition are present — if there is equal knowledge of all the essential conditions and equal powers of mobility from place to place and from employment to employment. The economic justification of labour combinations is found in the fact that in collective bargaining the knowledge of the conditions of the market is in general much greater, and the mobility of labour is increased by organisation. Thus labour combinations, if properly managed, may bring wages nearer to the rate that would be arrived at under really free competition, than would be the rate actually obtained under the imperfect competition possible in present conditions.

But it is doubtful if labour combinations can raise wages permanently above the true competition rate. So long as such combinations are voluntary, and the only condition of entrance is a standard of efficiency, the conditions of an exclusive monopoly are not fulfilled; and even if by law or social sanction of some kind the monopoly of labour became more effective, it would be met by monopoly of capital on the other side. Thus taking a broad view we reach the important conclusion that the method of collective bargaining by voluntary combinations may under existing conditions be the best method in many industries of securing the true market price of labour.

Combinations of capital are more likely to obtain for a

time the conditions requisite for a monopoly, but their endeavour in such cases is generally rather to raise prices at the expense of the consumer than to depress wages. The difficulties in maintaining such monopolies have already been examined.

On the whole, then, it may be said that in spite of, or rather in consequence of, collective bargaining in many industries, the prices obtained for the use of labour and capital are determined not by the principles of monopoly but by the principles of competition.[1]

[1] In this chapter, combinations have been treated of only from the point of view of value. For other considerations, see Bk. II., Ch. XII.

## CHAPTER IX.

### RENT IN RELATION TO VALUE.

§ 1. *The Normal Case.* It has already been explained[1] that Rent is used in various senses involving different principles. In economic rent, however, in the strict sense of the term, we have differential costs of production arising from certain natural and enduring conditions, with, as a consequence, differential profits, which, added together, form the rent. The typical case is agricultural land. Under these conditions it follows at once that the cost under most unfavourable conditions determines the price, that such conditions are in general found in land that pays no rent (or a nominal rent, or a rent for other than agricultural uses), and that therefore economic rent depends on price and not price on rent.

But this proposition is only true under the simple conditions assumed. It is now necessary to notice the principal exceptions and qualifications. The question is: Under what conditions may the payment of economic rent affect the price of the produce?

§ 2. *Exceptions.* The land available for agriculture in any fully settled country is not only limited, but it can be used for various other purposes, *e.g.*, for deer forests, for growing timber, for building, for railways, and many other purposes, or it may be destroyed by the working of mines. Land will be used for any of these purposes if thereby it pays a higher rent than the economic rent to be derived from agriculture.

[1] Book II., Ch. XIV.

But if it is so used there will be so much less available for agriculture, and consequently the margin is pushed out, or there is more intensive cultivation, and therefore the price of the agricultural produce will rise. The real cause of the rise is that rent is paid for some of the land, and this rent, being paid for differential natural conditions, is an economic rent.

This leads up to another point of theoretical importance. In discussing the theory of rent[1] a careful distinction was drawn between monopoly rent and economic rent in the strict sense. A land tax, for example, imposed by government may take the form of a monopoly rent and as such enters into cost price.

But suppose, apart from this simple case, that the conditions of production are such that the returns to every dose of capital, including the last, are equal, that is to say, that there are no differential costs. Still if the land is scarce relatively to demand it may yield a true economic rent. All that is necessary is that the produce should sell so as to yield more than the ordinary rate of profits at the time. This extra profit must plainly be considered as part of the cost; and it is not due to monopoly, because we suppose there is competition between the different owners and occupiers; accordingly it is at the same time an economic rent and an element in cost.

Again, still considering only agricultural land it may be used for different kinds of produce. If some new plant is introduced the experimenters must pay, at least, the economic rent of the land they require, and it will so far enter into the cost of production. Similarly, if land adapted for agriculture is used for something else, *e.g.*, building factories, it is a condition precedent that they must pay at least the agricultural rental as ground rent, and so far this enters into their cost of production. Thus all land adapted for agriculture and above the margin in

[1] Book II., Ch. XIV., § 4.

natural advantages, if used for other things, yields a rent which is part of the cost of these things, and also indirectly raises the price of the agricultural produce on other lands.

In the second form of the theory of economic rent it is assumed that the application of capital to the land just stops at the last profitable dose. This is a necessary condition if the land-owner is to obtain a maximum net economic rent. If, for example, he allowed crofters and squatters to cultivate the land just up to the point at which its gross produce gave a bare subsistence to the cultivators, there could be no rent. This is no fanciful illustration as shown by the experience of some parts of the Highlands of Scotland and Ireland. Similarly, peasant proprietors tend to cultivate their land so long as it gives any appreciable return to their labour; and if they made a fair allowance for interest on their capital and for the wages of their labour, there would be nothing left over in the shape of economic rent. And even large tenant farmers are constantly trying to induce their landlords to put more capital in the land in the form of buildings, drains, etc., than is really profitable, and in many cases they put more in themselves. If the landlord (or the tenant) allows for this profit, there may be no real economic rent left.

But it is quite clear that in all these ways the supply of the produce is increased, and therefore so far the price falls. It follows then conversely that the exaction of a maximum economic rent may so far raise the price of the produce.[1]

§ 3. *Other Forms of Rent.* Other elements of cost often called rent are only more or less analogous and in part are governed by other principles.

[1] It is theoretically possible that if all the owners of land farmed their land themselves (and were as skilful as tenant farmers), they might, in seeking to invest as much capital as possible in the land for the sake of profit, sacrifice a large part of the economic rent; *cf.* Vol. I., p. 408.

Suppose a man makes an invention and takes out a patent. If he limits his supply to as much as before, the price remains the same; the other producers by their old methods get ordinary profits whilst he by his new method gets an exceptional profit which is so far like rent. If he allows his rivals to use his patent, he exacts a species of rent. But in reality a rent of this kind depends not upon differences in natural conditions, but upon privileges granted by law. It is essentially a monopoly rent; and if the patent were annulled, the price of the article would fall.

The rent actually paid by a farmer is largely profits and interest on capital sunk in the land. If he does not pay enough for renewal, repairs, etc., this capital will gradually vanish and the land return to a state of nature. Thus a large part of agricultural rent is not strictly economic rent and is an element in cost of production.

The rent of mines[1] is partly economic from superior natural advantages, but partly also a payment for the extraction of raw materials that are not replaced. The same distinction may be made in the case of all forms of raw produce that are not continuously renewed.

Fisheries which are limited and appropriated and naturally restored (*e.g.*, salmon or eel fisheries) yield a true economic rent. This example again shows the necessity for putting a check on production (or extraction) if a maximum economic rent is to be obtained. In this case the payment of rent by preventing the impoverishment of the source may lower the price on the average. If all the salmon fisheries of this country were thrown

[1] In mines there is in general great discontinuity as regards the inequality in the yield; we cannot arrange mines by insensible gradations in order of productivity. It may pay the owners of the best mines to lower their prices for a time, so as to prevent the worst mines being worked, and thus eventually to obtain a monopoly price. Thus Adam Smith says the best mine determines the price, and Ricardo the worst. The one assumes a partial monopoly and discontinuity, the other continuity and competition.

open, there would be a great rise in the price of British salmon in a few years. Natural abilities of an exceptional order may yield either an economic or a monopoly rent, or a mixture of both.

§ 4. *Quasi-Rents.* *Quasi*-rents, as Professor Marshall calls them, may arise in different ways. To begin with the simplest, suppose there is a rise in the demand for some article, and therefore, for the time being, in its price. The production cannot be immediately increased, therefore the owners of the capital already in use obtain an exceptional profit for a time. This is *quasi*-rent in its simplest form. Similarly, the special business power and skilled labour may for a time obtain exceptional earnings and the increments form a kind of *quasi*-rent. So far the distinction is simple, though the use of the term "rent" is of doubtful value, seeing that the differential profit or earnings is due to a scarcity that is neither natural nor permanent.

But as the use of the term is extended, the difficulties become greater and the term seems less and less appropriate to the species of revenue considered. Suppose an improvement is made by a "representative firm." Until the other producers adopt it this firm obtains a differential profit which may be called a *quasi*-rent. But suppose, as frequently happens, the old forms of machinery remain in use until they are worn out. Then these old-fashioned instruments earn for their owners a certain amount of revenue. This return, it may be said, cannot be properly called profit, because it will not pay even the expenses of depreciation or renewal, and still less leave a surplus. Possibly, even leaving out of account the renewal, it does not even pay the bare interest on the original price. Still there is always some return, and it is classed as *quasi*-rent. This is, in my opinion, as unreal as consumer's rent. The consumer is supposed to gain a rent because he does not pay so much for a thing as under pressure he would be willing to do; and here the owner of old ma-

chinery is supposed to get a rent from it because it has ceased to yield profit or interest. It appears to me that the better way to describe the change in his income is to say that instead of gaining anything he incurs a loss, and it seems absurd because the loss is not total and absolute to call the partial saving a *quasi*-rent. If the owner of the machinery, being impressed by the mutability of things and the rage of mankind for invention, has allowed for the risk of change and has calculated that the period of full earning power will be short, he will have allowed for this falling off, and the return — small as it is — will be reckoned properly as part of the profit.

It is worth noting, in connection with the main argument of this chapter, what seems to be the chief reason for giving the name "*quasi*-rent" to such a peculiar form of income.

In considering the amount of earnings, or the shares in the price of the product, of the various factors of production, Professor Marshall takes up the position that over a long period — *i.e.*, long enough for the factors also to conform to their cost — the normal price of the product depends on the costs of the factors.

But over a short period — *i.e.*, when the supplies of those factors, such as machines, can be neither increased nor diminished — the *price of the product*, which is dependent for the time being on demand and supply, determines the earnings of the factors. Therefore, since in the case of agricultural produce and economic rent, price determines rent, and not rent price, it is thought that the analogy may be extended to the case in hand; for the time being the price determines the earnings, and not the earnings the price. These earnings are therefore *quasi*-rents.

But it may be objected: It is universally true that once a thing has been made (whether a finished product or an appliance of production) its price at the time does not depend on its cost, but on demand and supply. Cost only affects the price indirectly through potential supply.

Thus for the time being any appliance of production may gain an exceptional profit or incur an exceptional loss; that is to say, the earnings may be greater or less than the expectation when the thing was made or purchased. Thus *quasi*-rent is an unforeseen and unstable exceptional profit or loss.[1]

[1] *Cf.* Vol. I., p. 414.

## CHAPTER X.

### OF EXCESS OF SUPPLY OR OVER-PRODUCTION.

§ 1. *Statement and Meaning of the Question.* The terms "excess of supply" and "over-production" are obviously relative and the correlative term is "demand." Over-production must mean relatively to demand. It is quite clear that there may easily be an excess of supply of any one thing from the point of view of its producers; namely, in the sense that the supply can only be got rid of (if at all) at unremunerative rates. There may be of some things an excess of supply even from the point of view of the consumer, when no more would be taken at any price or when something might even be paid for the privilege of non-acceptance — there may be an effective demand for ices, but not for icebergs.

But it has been maintained by Mill and other writers, that anything in the nature of *general* over-production is impossible; on Mill's view it is as impossible as a general rise of values. The argument deserves examination on several grounds. It is an excellent example of the deductive method, bringing into prominence the working of general principles under hypothetical conditions.

There is besides no more common explanation of a general depression of trade, than that of a general over-production. The fallacy — if it be a fallacy — has been supported by distinguished economists. Dr. Chalmers inculcates as a remedy for the supposed evil moral restraint in the pursuit of gain, and Sismondi goes so far as to deprecate the extensive adoption of machinery and inventions.

I proceed to state and examine Mill's argument as a convenient mode of attacking the problem.

§ 2. *Mill's Argument.* Mill argues (in effect) that demand depends upon or implies two factors, — the desire to possess and the means of purchase. Accordingly an excess of supply implies a deficiency in one or both of these elements of demand. Suppose first that there is no general deficiency in the desire to possess, then the excess of supply arises because there are not sufficient means of payment. The answer is: Commodities pay for commodities ; the more commodities there are to sell, so much the greater are the means of purchase ; all exchange is on analysis barter; money is only the medium ; and therefore the denial of means of purchase with the assertion of oversupply is a contradiction.

Consider next the other element, namely, the desire to possess. Mill allows that there may be too much of any particular article, from the point of view of desire on the part of those who have the means of purchase ; he even grants that it is conceivable abstractly, that in this sense there may be too much of everything, which comes very near giving up the whole position, as the argument is essentially abstract. But Mill goes on to argue that the very fact that producers go on producing, shows that they are not satisfied. They produce some things in order to exchange them for other things ; and thus their production constitutes a demand. Accordingly every one who brings goods to market, not only brings means to purchase, but evinces a desire to possess. Mill is, however, obliged to admit that, unfortunately, the demand may be for one thing, and the supply may consist of another. But he still maintains there is no general lack of desire, such a defectiveness being disproved by the continuous efforts of producers, and he comes to the conclusion that the remedy is in brief to produce the "right" things, and not the wrong ones.

If, lastly, it be argued that capitalists go on producing,

not from desire to purchase for personal consumption, but from the mere habit of accumulation and the "sacred thirst of gold," he still maintains that they must really expend their savings; hoarding is out of fashion, and all capital is consumed. Savings must be invested productively, and that on analysis means the payment of more wages to productive labourers. Now, asks Mill, will any one maintain that the general body of labourers can suffer from satiety, and that they go on labouring from mere habit without the desire to increase consumption? Thus the remedy for supposed general over-production is to produce things for general consumption by the mass of the people.

§ 3. *Criticism of Mill's Argument.* The first position that commodities pay for commodities contains, no doubt, an important truth. Money is, in a sense, only a medium of exchange; apart from the reserves in banks and kings' treasuries, the very object of money is to help things to exchange. Take the particular case: Exports pay for imports, only a small balance being settled by the payment of a precious metal. But then it may be objected that in order that this principle may work, and that commodities may pay for commodities as the pure theory assumes, we require a perfect organisation of markets. It is quite possible that there are, on the whole, no more things than would be exchanged and readily consumed; but if the mechanism of exchange is out of gear, — if markets are disorganised, — how are the exchanges to be effected? Thus there may easily be over-production of all the great staples of trade relatively to the means of distribution or organisation. Such, for example, happens in an acute form in times of commercial crisis and collapse of credit. Trade, for the time, is stopped, and masses of things are unsalable.

Consider next Mill's second position that any apparent excess of supply (partial or general) shows that producers have not produced the right things; that desires are

really insatiable if we only introduce variety or, indeed, if we consider the great masses of labourers. Here, again, there is involved an important truth. In backward and undeveloped countries a necessary preliminary to the increase of production is the awakening of wants and desires that are only potential or dormant. But, although the general truth is important, Mill overlooks or underrates the practical difficulties. How are producers to know what the right things are? It is true, they are constantly trying to find out, and even to invent, new habits and desires by advertisements and the like, but it is obviously very difficult to estimate new demands for new things. There is much of the force of habit in consumption, and very few producers are capable of initiation. And next, supposing the producers have discovered the right things, can they turn their old capital at once to the production? Have they, themselves, the necessary skill and knowledge? It is said that the rage for cycling has lessened the demand for pianos — cycles are the right things, and pianos the wrong things; but can the maker of pianos become a maker of cycles? Or, to take a larger example, of what avail is it to tell the farmers there is a glut of corn and meat, and that they must produce something else? It may be very difficult to produce other forms of food stuffs or raw material, — a farmer may make a bad gardener or fruit-grower, — and it is impossible to devote capital sunk in the land to electric appliances or some other new objects of desire.

To some extent, Mill himself is forced to admit these difficulties. He allows, for example, that there may be an excess of supply over the money demand or an under-supply of money. But he forgets that though in the last resort it is true that commodities pay for commodities, there is very little direct barter; every one, in general, sells for "money" or some of its credit representatives, which, again, as we shall see, rest on a metallic basis. In fact, an under-supply of "money," relatively to commodi-

ties, is a sure sign of disorganisation, or, at least, of difficulty in exchange. Mill assumes that such a disorganisation of the means of exchange can only be "temporary"; but it may be replied that trade oscillates between inflations and depressions, and that the "temporary" intervals of depression added together would cover half of all the time there is.

Mill is also compelled to admit that there may be over-production in the sense of unprofitable production or rather in the sense of a general fall in profits.

It is true that this is not quite the same thing as a deficiency of demand, but from the point of view of producers it is even more a case of over-supply. The guide of production is profit, and demand is only of interest to producers as leading to profit.

Thus the general conclusion appears to be that both the principles relied on by Mill are true and important, but as is usual in deductive reasoning they only express tendencies that may be counteracted. Things are always striving to exchange for things, but the means of exchange may be imperfect; the producers are always striving to adapt production to desire, but their knowledge and their means of adaptation may also be imperfect. In short, Mill's reasoning only holds good under the assumption of perfect mobility of labour and capital, or of perfect adjustment of supply to demand; and general over-production is in reality a case of imperfect mobility, both as regards actual transference and knowledge, or as it arises from an imperfect adjustment of supply to demand.

## CHAPTER XI.

### DEFINITIONS AND FUNCTIONS OF MONEY.

§ 1. *Difficulties in the Definition of Money.* The answers to the question: What is money? are almost as perplexing and diverse as the answers to the question: What is truth? A very brief survey of historical and existing monetary systems will suffice to show that a simple clean-cut definition of "money" is not easily found. Consider first the various "things" that have been in the past and are actually in the present called "money." We find that all sorts of substances have been used as money: cattle, slaves, skins, corn, oil, tobacco, dried fish, salt, tea, straw mats. In the course of progress the metals generally displaced other materials, and gold and silver survived in the struggle of the metals, but before this limitation of money to the precious metals was complete and gold and silver had made good their claims to be money *par excellence*, new competitors came into the field, causing the difficulties of definition to be greater than ever. Bank notes in the shape of definite promises to pay sums of the metals on demand might be styled representative money, but when the notes become inconvertible, and the time, manner, and mode of payment uncertain, this representative character becomes very shadowy. When bills of exchange have largely displaced bank notes in commercial transactions, and cheques again have largely displaced bills, it has been plausibly maintained that the principal real money substance is credit rather than gold or silver. And with the full development of modern

banking and the creation of the "money" of the money market, the real substance of "money" seems to elude the grasp as effectually as the wider real substance of metaphysical controversy.

Seeing, then, that a Socratic inquiry into the actual usages of the term "money" and the kinds of money does not suggest any adequate definition, it has been thought that the better plan is to frame a definition according to the functions. "Money is that money does" is Professor Walker's solution, and it has the advantage of suggesting that a thorough understanding of what money does and how it does it is the most important result to be arrived at in the search for a definition. Not till we have examined at any rate the primary functions of money shall we be in a position to see if an exhaustive definition is possible, just as the necessary preliminary to a definition of matter is an analysis of its primary qualities.[1]

The primary functions of money are three; viz. to provide a general medium of exchange, a common measure of values, and a standard for deferred payments, and, as will be shown in the succeeding sections, they are all closely related. To these requisites it is sometimes added that money ought to provide a *store of values*, or the means of saving or accumulating general purchasing power, and also to furnish a means of transfer of values from place to place and from time to time. These requisites, however, appear to be derivative from the three primary functions.

§ 2. *Money as a Medium of Exchange.* It is often said that all exchange is really barter, that commodities pay for commodities, and that money is *only* an intermediary. This mode of stating the first of the primary functions of money, namely, that of providing *only* a medium of exchange, is apt to be misleading, and has in fact given rise

[1] On the difficulties in the definition of "money," *cf.* Sidgwick's *Principles*, Bk. II., Ch. IV. For specimens of the great varieties of "money," see Jevons, *Money and the Mechanism of Exchange.*

to several fallacies of the popularised scientific order. It is a matter of simple observation that in the modern industrial world direct barter plays a very small part, and indeed with complex division of labour is impossible. "Money," with few exceptions, is as essential to the exchange of commodities or services as language is to the exchange of thoughts or ideas. The exchange of commodities is a complex act; the seller of a thing we may indeed say obtains money in return and with the money buys another thing, and the only use for the money is to effect the exchange, but the intervention of the money is essential, and exchange by means of money is very different from the direct barter of the two things. The notion that all exchange is really barter leads to the idea that money is of very little importance, and that commerce would go on just as well if there were no money. It is also at the root of the fallacy that monetary disturbances cannot affect production, and that the volume of industry cannot be affected by monetary causes. Further, from this point of view, money is often regarded as a set of counters in a game, a rise and fall in prices is described as nominal, and even a financial crisis is supposed to involve simply a change of balance-sheets of individuals, without any change in the national wealth or well-being. The truth is that, as so often happens, the destruction of one set of fallacies founded on one extreme of the truth has made room for the growth of another set founded on the other. The mercantilist over-rating of the importance of the quantity of money has given place to an equally fallacious under-rating of the functions of money. When it was supposed to be established that trade might go on equally well with a high level or a low level of prices, and that the quantity of money only affected the figures and not the things, it seemed a short step to the position that trade might go on equally well without money or without price. This change of attitude towards money in the world of commercial politics was reflected in the economic

theory. Economists began to imagine that if they stated values in terms of prices they were *ipso facto* guilty of a fallacy; cloth and linen were supposed to be necessary to express adequately the realities of foreign trade; and real cost was carefully explained to consist of disagreeable feelings (*e.g.*, hours of labour), and feelings and figures are plainly different things.

There can, however, be little doubt that the gradual substitution of exchange by money for exchange by barter has been one of the greatest agencies in civilisation. Without money in its simpler forms industry would have been strangled in its infancy, whilst the modern developments of industry have only been possible through a corresponding development of money. And so far from the effects of the use of money in the world of industry being simple and obvious they are often complex and obscure, and the theory of money (including credit and banking) presents some of the most difficult problems in economics.

When it is said that money is essential as a medium of exchange in the modern industrial world, it is not implied that the money in question is coin or even that some credit document purporting directly to represent coin must pass at every transaction. It is sufficient that the commodities to be exchanged shall be expressed in terms of money, and in this case a relatively small balance (if any) of "money" need be transferred. Thus, as will be shown later, in international trade a bargain is sometimes made by which the export is directly paid for by the import. In this case and similar cases it may be said that the monetary function is that of a measure of values, and not that of a medium of exchange. The truth is the two functions are so closely connected that it is difficult to effect even a logical operation.

§ 3. *Money as a Measure of Values.* Money, then, is required not only to furnish a medium of exchange, but to provide a standard measure of values, or a common measure in which all values can be expressed. The actual

*medium* may not itself be the standard unit of measurement; it is enough if it is related to the standard as multiples or sub-multiples or in any exactly determinate way. Thus at present in the United Kingdom the sovereign is the standard unit of value; all values are measured in parts or numbers of sovereigns. But the actual payments may be made by bronze, silver, notes, cheques, or entries in books. The unit of value which constitutes or determines the standard measure need not itself be a coin at all. Thus in Saxon times the unit of value was the pound weight of silver, and practically the only coins were silver pennies. Again the *money of account* may not be a coin. Thus in Scotland fees are still reckoned by guineas, and fines are often imposed in merks and pounds Scots.

A good example of the differences under consideration is found in grain rents. Here originally the rent meant so much grain, but payments in many cases have come to be made in money and not in produce. Thus grain becomes the measure and money the medium of exchange; and the amount of the medium given depends on the price of the grain which at particular times is struck according to particular rules. In this case for the purpose of payment at the particular time the relation of the medium (money) to the standard (grain) is definite and exact, but it varies from time to time.[1]

§ 4. *Money as a Standard for Deferred Payments.* So far in treating of the functions of money it has been assumed that the exchanges are effected immediately, or at any rate nothing has been said explicitly of *time.* But in taking a general survey of the industrial world, time is an element of the utmost importance. We may assume provisionally that once the things are made and sent to market, they may be immediately exchanged, and thus we may in a preliminary account of exchange neglect the element of time. It is clear, however, that we can-

[1] *Cf.* Bell's *Principles of the Law of Scotland*, eighth edition, Vol. I., p. 723, § 1205.

not make the same supposition as regards production. All production involves *time* as a principal element to be considered. The reason why market values may occasionally rise to unusual heights is that there is no time to increase the supply. One of the principal bases of the difference between *normal* and *market* values is found in *time*. Again, it has been maintained by Professor Boehm-Bawerk and others, that every increase in the productive powers of society involves an extension of time in the processes of production, or the substitution of indirect and roundabout capitalistic methods with deferred results for the direct action of labour with immediate returns of goods ready for consumption. Whether or not this proposition is capable of general application and of a deductive proof there can be no question that the more advanced any nation is in trade and industry, so much longer do the periods become over which the series of productive processes extends. The actual work of the present is only possible through the work of the past, and is largely directed towards providing for the work of the future. Thus time becomes of more and more importance in production.

But, as we have seen, exchange and production are inseparably intertwined, and, logically, exchange is part of every process of production. In other words, the endless series of productive processes involves a similar series of exchanges. These exchanges, again, rest on bargains or contracts in which time is generally an essential element.

It is this element of time which gives rise to the third primary function of money; namely, to provide a standard for deferred payments. However protracted the period over which a contract extends, it is in modern times generally expressed in terms of money. Speaking generally, every one is bound by a series of contracts or *quasi*-contracts to give and to receive certain sums of money at various future dates, and his whole industrial life de-

pends on the fulfilment of these contracts and *quasi*-contracts. The working man expects during a certain time to receive so much money and therewith to provide himself and his family with goods. On the expectation of this demand other people provide the goods, and others the means to make the goods, and others the means to make the means, and so on indefinitely. But all these expectations — all these contracts and *quasi*-contracts — are based on money valuations. They are instances of deferred payments. It follows at once that if at the time the bargain is struck, or more generally when the expectation is formed, the "money" means one thing, whilst at the time of expected realisation the "money" means something else, the real meaning of the bargain is altered, or the just expectations of the series of producers are not fulfilled. The natural consequence will be to impose a check on these money bargains and estimates in proportion to the uncertainty in the meaning of the money and in the extreme case, as was said of the French assignats, commerce is dead, and betting takes its place, or perhaps the evil may be more truly if less picturesquely described by saying that prices are dead and barter takes their place.

§ 5. *Money as a Store of Value.* Closely allied to this function of money as a standard for deferred payments is its function as a *store of value*. Just as when people make a contract in terms of money they assume that the meaning of the term will not change, so also when they save money they assume that it will not deteriorate or otherwise change by the lapse of time. One of the advantages of gold and silver as money is that they do not deteriorate or change in physical qualities by keeping. Whether they change in other essential qualities is a matter for further consideration. The substitution of deposit banking for hoarding is one of the best examples of the development of money as a store of value, and shows also most clearly the connection of this function with that of a standard for deferred payments. Just as exchange

by money differs from exchange by barter, similarly the saving or accumulation of money differs from that of capital, or has peculiar characteristics that need to be taken into account. When a man goes to his banker for "money," he may accept bank notes in payment, but he would not accept pigs or other forms of capital; what he puts in the bank and what he wishes to withdraw in case of need, is money in the sense of general purchasing power (the option of the thing being with him) and not some particular form of capital (the option being with the banker).

The use of money for the transference of value from place to place may be treated on similar lines. The trader who remits money assumes that the transference from place to place, just as the continuance from time to time, can be effected without any deterioration or other change in the qualities of the money. Exchange banks, and especially telegraphic transfers, offer a good example of the development of money as a means of remittance. Here, again, it is to be noted that what is remitted or sought to be remitted is money (to meet a debt or to furnish general purchasing power), and not some particular form of capital.

§ 6. *Reconsideration of the Definition of Money.* In the two preceding sections references have been made to the "real meaning" of the term "money" and it has been assumed that money can be distinguished from particular forms of capital. When contracts are made in terms of "money," and when "money" is saved in banks, it is certainly taken for granted in ordinary cases that the term "money" is capable of an exact definition or interpretation. Accordingly we are forced to the conclusion that instead of the term "money" being incapable of any adequate definition, the first requisite from the point of view of certainty in the interpretation of contracts is that the monetary standard shall be capable of exact definition, and the second requisite is that the actual medium of exchange shall conform to the standard.

Neither of these requisites is so simple as at first sight appears. To begin with, it may be plausibly maintained that if the real meaning of the "money" is to remain unaltered over any period, the purchasing power of the "money" must remain unchanged. It is, however, easy to show by reference to the theory of value that a standard in this sense is unattainable. It is only conceivable under the supposition that the prices of all purchasable things remain absolutely fixed. It is not enough that the general average (however determined) or some particular group, as shown by an index number, should remain constant. Nobody wishes to buy or could buy an infinitesimal portion of every form of wealth. Again, different people expend their money in different ways; they do not buy the constituents of index numbers, but they buy particular quantities of particular things, and the quantities and the things vary according to circumstances.

It is quite clear that at any rate in the modern industrial world relative values are constantly changing according to variations in the conditions of supply and demand, and accordingly if "money" purchases more of some, it will purchase less of others, even if the general average or the average of some group of prices remains unchanged. Seeing, moreover, that experience shows that those averages themselves change, — that there are general movements of prices and movements of various groups, — it is still more clear that the "money" in which actual prices have been and are recorded does not possess stability of value. A certain quantity of any standard money that we like to take during the present century would at some times purchase more and at some times less of things in general and of various groups chosen for different purposes.

It may then be argued that if the value of the standard has changed from time to time, — for definiteness of illustration we may take the value of the pound sterling, — the real meaning of the contracts made in terms of the

pound sterling has been vitiated, just as much as if in a bargain for yards of cloth the standard yard had shrunken or expanded.

In contracts in terms of money, however, what is present to the minds of the parties, it must be insisted on, is in the first place the money itself. In determining how much money to offer or accept, no doubt the parties respectively consider how the money is to be obtained and what is to be done with it (and similarly of the thing that is bought and sold), but it is doubtful if, except in very special cases, they ever think of the general purchasing power of money even in the vaguest way. If the coinage is debased or worn, and the meaning of the money in the sense of a certain weight of fine metal becomes so uncertain that coins will not pass by simple counting, but are tried by fire and the scales, then no doubt the tendency is to consider the purchasing power of any particular parcel ; but even in this case the depreciation, it is to be observed, is measured by reference to the standard. Similarly as regards inconvertible paper, so long as it is taken at all, its purchasing power is measured by the premium on the metal it is supposed to represent. Whether or not those who make contracts in terms of pounds sterling ought in their own economic interests to consider the general purchasing power of gold (or more precisely to make a reference to some tabular standard) is a matter for argument, but on the question of fact it may be confidently asserted that they certainly do not go behind the standard provided by the government so long as the standard retains its legal definition and the circulating medium conforms to it.

Take the case of a bargain for wages to be paid by a farmer to a ploughman — say, twenty pounds a year with other allowances. The master — it may be said — calculated that to get the coins he must sell so much stock of various kinds, and the man that for the coins he would get so much goods of various kinds, and therefore — it

may be argued — if prices change (unless the changes happen to counterbalance), the real meaning of the contract is vitiated. But as a matter of fact — it may well be asked — was there any such assumption as regards the stability of prices? In the first place, both parties knew by experience that the prices of the things in question had fluctuated from time to time, and they might naturally expect fluctuations in the future. Next it may be argued even from the point of view of the labourer (who is always supposed to be the victim of any movement in prices) that what he really wanted was so much "money." His master by other terms in the contract provided him with allowances, such as meal, peats, and potatoes, and it may well be that the man preferred to have the choice of the quality and quantity of the other articles of consumption left in his power by being paid not in kind but in money. Further, we may suppose that it would seem to the man quite an even chance if he only knew so much of the laws of probability as is gained by playing pitch and toss, that the things in his budget might fall in price in the interval instead of rising; or again, it may be said that if he expected a rise in prices he would have bargained for more money. Similarly we may suppose that the master thought the simplest plan was to pay away the money he received partly in wages, and that he took his chance of a movement in prices against him just as he took his chance of the weather.

And in general it may be observed that in any contract of sale (whether of labour or anything else) the seller always hopes that time will prove he had sold dear, and the purchaser hopes to find that he has bought cheap. By a well-known principle of human nature, hope begets expectation, and thus both parties to the bargain expect that the element of uncertainty will turn in their favour; but nobody expects prices will be free from uncertainty.

Accordingly the just conclusion appears to be that in contracts in terms of money the real reference is to money

and not to things, and that both parties know perfectly well that the money will not always have in every respect and for every purpose the same purchasing power.

This view is supported by an appeal to experience. Produce rents would in general represent the true surplus much better than money rents, and yet money rents have displaced produce rents; similarly money wages have displaced wages in kind, usury of money has displaced usury of victuals, and generally all kinds of contracts formerly expressed in terms of things, have come to be expressed in terms of money.

This development of monetary contracts has been effected as part of the progress in civilisation in spite of occasional revolutions and constant fluctuations in prices. Accordingly it can hardly be maintained that in these monetary contracts, one of the implied terms was always that the purchasing power of the money would remain constant. The idea of general purchasing power is difficult to grasp even by the metaphysical economist, and that particular prices are constantly changing was manifest even to the plainest man in mediæval markets.

On the other hand, however, the history of money shows that at a very early stage of development the duty was imposed on governments of providing a standard of value capable of exact definition and of providing a currency or medium of exchange in conformity with the standard. A pound weight of silver of definite fineness was a plain, palpable object, though precisely what it would purchase from time to time nobody could tell. Similarly, if two hundred and forty silver pennies weighed exactly a pound, it was equally plain that the currency conformed to the standard. The real meaning of monetary contracts as understood by the parties was only altered when governments either altered the standard or debased the currency. If through a great abundance of silver, prices rose, and creditors found they could not purchase so much as they expected, *per contra*, the debtors found they had to sell

less of their labour, or goods, to meet their debt; and a man grumbled or rejoiced according as he was mainly a creditor or a debtor. But so long as the pound of silver was forthcoming it was not felt that the contract had been vitiated, though the bargain may have been unfortunate. It is still a matter of argument, to be taken up presently, whether on the whole it is better for a country that general prices should rise or fall or remain steady, whether, in technical language, a depreciation in the purchasing power of gold is better than appreciation or the mean of stability is better than either — but the evils of any uncertainty as to the definition of the standard or of any depreciation or debasement of the currency in respect to the standard have been so often exemplified that they admit of no dispute. Consider, for example, the English currency under Henry VIII., or again before the recoinage of 1696, or, to take a modern instance, the financial difficulties of America with its silver in a state of suspended depreciation.[1]

§ 7. *The Exact Definition of Money.* It has been well said with reference to legal rules that there are many things for which it is needful or highly convenient to have a fixed rule (*e.g.*, the rule of the road in driving), and comparatively or wholly indifferent what that rule shall be; and again that many cases occur where the legal rule does not profess to fulfil anything like perfect justice, but where certainty is of more importance than perfection, and an imperfect rule is therefore useful and acceptable.[2] These observations apply to standards of measurement generally, and especially to the standard of value. The precise weight of the standard coin and the precise admixture of alloy are matters of indifference compared with the certainty of the weight and fineness, and in most cases the actual weight and fineness are due to a succes-

[1] October, 1896.

[2] *History of English Law*, by Pollock and Maitland, Introduction, p. xxvi.

sion of historical accidents.[1] At the same time it does not follow that the government can set up any standard it chooses. On the contrary, any change will cause some inconvenience, and unless strong reasons are forthcoming, the maxim *quieta non movere* is applicable. Again, it must be observed that although a legal standard is adopted, and a currency issued that is based upon it, the parties to a contract are in general free to express their bargain in other terms, and to accept other forms of payment. There is no reason why English landlords and farmers should not agree to adjust rents in terms of grain or of silver, except that on the whole they find standard money more convenient. As a matter of fact most transactions in this country are effected — so far as the *medium* of exchange is concerned — not by legal tender, but by various credit documents created and accepted by private persons. And most governments have found when they tried to enforce an unpopular change in the standard (to benefit, for example, by fiat money) that the people have resorted to bargains on the old standard; in money, as in most things, government only governs by consent.

To resume: In order that there may be certainty in the interpretation of monetary contracts it is necessary that an exact definition of money should be laid down by the law of the country, just as in the case of standard measures of weight, capacity, or extension. Such an exact definition may be constructed in various ways, and various standards have been actually adopted, and various others — equally exact — have been proposed. Exactness of definition does not necessarily imply simplicity. A pound sterling at present is defined as consisting of 123.27447 grains Troy of English standard gold, and this gold is composed of eleven parts of fine gold and one part of alloy, chiefly copper. An equally exact definition would be obtained if the pound sterling were defined as

[1] *Cf.* Ridgeway, *op. cit.*

sixteen ounces avoirdupois — one part fine gold and fifteen parts fine silver; or again, one ounce of fine gold *or* fifteen ounces of silver would be equally exact if it is provided which of the parties — the payer or the receiver — is to exercise the option. Similarly a standard might be constructed to the effect that a pound sterling should mean a composite of any number of things in definite proportions (like the receipt for a fancy pudding), or it might mean a series of any number of alternatives so long as the description is accurate and the option definite. Theoretically — if stability of purchasing power were supposed to be the primary requisite — a tabular standard might be constructed — the debtor having to pay more or less of standard coins according to the movements in the prices of certain representative commodities officially ascertained.

But although simplicity is not necessary to exactness of legal definition, it is highly convenient for popular dealings, and the choice of a standard is limited by circumstances, or rather is the result of circumstances. Economic forces have determined the material of the general medium of exchange, and thus indirectly of the standard, and the law has only given precision. The development of trade has in the course of time reduced these standard materials practically to two, and values all the world over are expressed or are expressible in terms of gold and silver; if a country has inconvertible paper, or coins money with heavy seigniorage, or give its coins an artificial value through limitation, still for the world's commerce the quotations are reducible to one or other of the precious metals, and these again are quoted in terms of one another, silver having its gold price, and gold its silver price. Accordingly, under present conditions we may say that although legally there are a multitude of standards, economically the commercial world has only two standards; viz. gold and silver.

These two standards, however, do not at present stand

in any fixed relation to one another, still less do they express any fixed purchasing power over any other commercial products. Some of the most important and difficult problems are found in the discovery of these changing relations of gold and silver to one another and to things. Thus, whilst in dealing with any particular country, the definition of standard money must be taken as that given by the law, for most economic purposes by standard money we mean either fine gold or silver, and it is to one or other of these standards that prices are reduced.

Similarly as regards the definition of money as a medium of exchange. Particular governments define by law what is to constitute legal tender, and in general they provide at any rate a certain portion of this legal tender, but in general also a portion only, and the provision of this legal tender is subject to various conditions (*e.g.*, in England, Bank of England notes, gold, silver, bronze are under different legal regulations). But apart from legal tenders issued by the government or its delegates, monetary bargains are completed by forms of credit which are as readily — in some cases more readily — accepted. Unquestionably in the aggregate settlements of far greater value are made by cheques than by coins or bank notes, and the "money" of the money market and the deposits in banks consist to a small extent only of coins or notes. The use of these forms of credit certainly affects greatly the exchange value of the standard metallic money, and also the rates obtained for the loan of such money, and it may be thought that as they perform the functions so they are entitled to the name of money. It may further be said that the quality of legal tender is only an accidental quality of money, and that the real compulsion that lies in full-weight gold coins is derived from the gold because that metal is universally desired. There are portions of truth in these contentions, but every question of definition must be ultimately tested by convenience. In economics it is still found convenient to observe so far as possible the

best popular usage if popular terms are retained. Applying this test, a bank note is a promise, and a cheque is an order, to pay money, and the term "money" in the last resort means metallic money. Even a forced paper currency is supposed to represent metallic money, and its value depends partly on the chance of government redeeming its implied promise.

And from the scientific point of view it will be found highly important to distinguish between standard metallic money and the various representatives of such money. These representatives obtain currency or are accepted only because it is believed that whenever desired they can be converted into standard money. If there is any suspicion or doubt as regards any form, it will not be accepted or only at a discount proportioned to the doubt. In England, it is true, Bank of England notes are legal tender, but they are not legal tender by the Bank itself — and *exceptio probat regulam.* These notes have been before and may be again at a discount. But as regards standard money itself the payment necessarily completes the monetary bargain, for as already explained, the essential thing is money and not purchasing power.

Token money, though metallic, is still only representative. To say that everything accepted in lieu of money is therefore money, is like saying that because things which are equal to the same thing are equal to one another, therefore they are one another.

Again, throughout the countries of the commercial world in which gold is the ultimate means of settling international balances, the local legal tender currencies are themselves for the outside world valued as representative of so much gold (and similarly as regards silver and silver-using countries). Thus — not to complicate the argument at present with alternative standards — gold is not only the standard but the fundamental medium of exchange, and movements of gold from country to country have a peculiar importance beyond that of ordinary merchandise.

Gold bullion is thus essentially international "money," and not only fulfils the primary functions to a fuller extent than can be claimed for any of the numerous forms of representative money, but is itself the thing or the power, which they only represent. Other differences will appear in the more detailed treatment, such as the limitation of the natural sources of supply of gold, the use in the arts, the loss by wear and tear, and other characteristics, which still further differentiate gold from representative money. It will be found also that there are peculiar relations between gold and silver considered as standards, which serve to differentiate the effects of the precious metals from those of credit.

Briefly expressed, then, the result of this inquiry as to the definition of money leads to the following results. *The standard of value* in any country is exactly determined by the law, and this definition must prevail in the interpretation of monetary contracts, just as in the case of every other standard measure. How far the use of the standard is compulsory is also a matter of law, and how far the compulsion can be carried out is a matter of government and public opinion. In the course of time the governments of all societies beyond a certain stage of development have adopted as their standard some definite amount of gold or silver (and in some cases an alternative or combination). Thus, in the economical world it may be said that there are at present two standards, viz. fine gold and fine silver, and a number of varieties of legal standards according to the alloy, seigniorage, etc., of the standard coin.[1] Again, the *medium of exchange* in any country which people *must* accept in satisfaction of a debt is also a matter of law, and how far the compulsion can be extended to future contracts is a matter of government and public opinion. How far people may and do accept other means of settlement (in place of legal

[1] Inconvertible paper may be said to be all alloy, with a stamp giving an uncertain promise of gold or silver in the future.

tenders) is a matter of habit and convenience, and how far such acceptance is final or irrevocable is again a matter of law. The precious metals (in the countries in which they prevail respectively as standards) can be converted at once by a government stamp into legal tender, or if the mints are closed, they command legal tender in a manner that is not possible for other commodities. Further, it will be found that other media of exchange which locally and temporarily pass as "money" in the completion of transactions do so because they represent or are based on one or other (or both) of the precious metals.

Thus gold in gold-using countries is not only economically the fundamental monetary standard, — and *mutatis mutandis* the same holds good of silver in silver-using countries, — but it constitutes also the fundamental medium of exchange. Its actual use may be economised to an enormous extent by substitutes, but it cannot be dispensed with. If it could be so dispensed with altogether, it would also cease to be the standard.

§ 8. *Conclusion.* The conclusion of this long investigation is that it will be found convenient, and indeed necessary, to use various qualifying adjectives in speaking of money and in different contexts to give different degrees of elasticity to the definition; thus we have metallic money (both standard and token), paper money (convertible and inconvertible notes), and representative money of various kinds. Sometimes we are concerned mainly with money as legal tender, whilst sometimes general acceptance is sufficient for the argument; sometimes the stamp and sometimes the gold itself is the chief subject for consideration. In some cases the precise meaning is sufficiently plain from the context, but in others an exact definition is a necessary preliminary. Thus most of the confusion that has arisen in connection with the quantity theory of money is due to want of clearness in the definition.

## CHAPTER XII.

### SYSTEMS OF METALLIC MONEY.

§ 1. *Of the Use of the Precious Metals as Money.* An examination of the functions of money shows that the metals, especially gold and silver, are best adapted, once a certain degree of civilisation has been attained, to perform these functions. The characteristics of good metallic money may be easily deduced. In order that money may fulfil the function of a medium of exchange that will be generally accepted, it should be formed from a substance that on its own account is highly esteemed, it should be easily transported from place to place, it should not deteriorate by keeping, and should not be liable to rapid wear and tear by use. In order that money may provide a convenient measure of value, the money substance should be homogeneous, so that equal weights, however divided, should have practically the same value, and it should be readily divisible. As a standard for deferred payments and as a store of value the money substance should be free from sudden and extensive fluctuations in value, and in proportion as its substance is durable and the annual supplies are comparatively small, money is on the side of supply, relatively stable in value, whilst in proportion as the substance is generally prized, there is similarly a relative stability on the side of demand. The addition of cognisability, or easy recognition by simple tests of value of any piece of money, completes the list of the qualities required. It can be readily shown by reference to actual cases that gold and silver

possess these qualities to a higher degree than any other material substances, and historically they have displaced other varieties of material money which were suitable for earlier stages of development.[1]

It was soon discovered, also, that the utility of the precious metals for monetary purposes was much increased by coinage. The history and methods of coinage are of sufficient extent and importance to form a separate science, and in the following sections only such points will be indicated and illustrated as have a bearing on the main argument of the present book.

§ 2. *Definition and Qualities of Coin.* "Coins," says Jevons, "are ingots of which the weight and fineness are certified by the integrity of the designs impressed upon the surfaces of the metal." The integrity of the designs is supposed to indicate that the original pureness and weight have not suffered any subsequent alteration, *e.g.*, by clipping or admixture of alloy. We naturally think of coins as circular, but they have been made of all shapes — octagon, hexagon, square, crescent, etc.; we naturally also think of coins as of a convenient weight for the pocket, but in Sweden in the eighteenth century large plates of pure copper were "coined," $7\frac{1}{2}$ inches square and $3\frac{1}{2}$ pounds in weight. There are several attributes of good coinage which are of economic importance. One principal aim should be to prevent counterfeiting, and the only way to prevent counterfeiting is to make it difficult, troublesome, and costly. Punishments (even of death) will not suffice. Just as a tax that can be evaded will be evaded, so a coin that can be counterfeited will be counterfeited. Thus, in England moulds gave place to hammering, and hammering to the elaborate machinery of modern mints. Similarly good coins should not admit of fraudulent removal of the metal without detection (hence the device of milled edges); they should be so designed as to cause a minimum of wear

[1] *Cf.* Jevons, *Money*, Chs. IV., V.; Ridgeway, *Origin of Currency and Weight Standards.*

and tear; and the size and weight and relative values should be adjusted to the general convenience. Most countries with the advance of civilisation have adopted the decimal system of coinage, but in the United Kingdom in spite of the almost unanimous recommendations of experts the government has not yet gone beyond the framing of a permissive bill with reference to a decimal system of weights and measures which may be considered as a preliminary step towards decimal coinage. There are various other matters of great interest connected with coinage which the economist must leave to the numismatist. I proceed to notice the principal systems of metallic coinage.

§ 3. *Classification of Systems of Metallic Coinage.* In classifying the systems of metallic coinage it is convenient to take the historical order of development.

(1) *Currency by Weight.* There can be little doubt that the earliest and simplest form of metallic currency is currency by weight. In this system in its earliest stage the precious metals (one or more of them) pass simply in the same manner as any other forms of merchandise. Even after governments have found it convenient to issue coins in the sense defined above, people have continued to test the weight, and the fineness of the coins for themselves. The antiquity of currency by weight may be illustrated from the English system. Every English schoolboy knows that in Troy weight 24 grains make 1 pennyweight, 20 pennyweights 1 ounce, and 12 ounces 1 pound. But it is not so generally known that the grains were originally grains of corn, and the pennyweight was literally the weight of a silver penny. The statute *De Ponderibus* (*circa* 1265), which was only declaratory of ancient practice, shows how this weight was determined. Thirty-two wheat corns taken from the midst of the ear were to give the weight of the penny of standard silver. It happened, however, that in other weight systems barley corns were taken as the unit instead of wheat corns, and it was soon observed that 3 of the former were equal to 4

of the latter. Thus, 32 wheat corns were equal to 24 barley corns, and the Troy grain is simply the barley corn.[1]

It may be observed that just as currency by weight is the first stage in the development of coinage, so also a reversion to this method takes place whenever a currency becomes debased (unless the coins obtain an artificial value through limitation). Currency by weight also still forms the principal medium in settling the balance of international indebtedness.

(2) *Single Legal Tender System.* The system of currency adopted by the first coiners of money was in general to issue coins of one metal only, and of one kind only. Thus in England, from early Saxon times down to the reign of Edward III., silver was the only metal coined, and the silver penny was the only coin.[2] The obvious objections to this system are that for very small payments the silver penny was too valuable, and for very large payments the weight of silver was inconvenient, and the penny not valuable enough. The silver penny, it may be pointed out, was originally about the same size as the present three-penny piece, and it is easy to imagine the inconvenience of such a system of currency. A petition of 1379 prays the king and council to issue a greater number of half-pennies and farthings, amongst the principal reasons stated being that beer was selling at one penny per three gallons, and also that the penny was too valuable for collections in church and the like ("for God and for works of charity"). To supply the demand for small change, *token*[3] coins were issued, some of the earliest of which in England were made of leather. The demand for coins of greater value was partly met by larger silver

[1] *Cf.* Ruding, *Annals of the Coinage*, p. 11, and Ridgeway, *op. cit.*, p. 181.

[2] There are a few doubtful exceptions of antiquarian interest, *e.g.*, the Saxon *sceattœ*.

[3] *Cf.* Ch. XIII., *infra*.

coins (*e.g.*, in 1249 the groat or great sterling = 4 *d.*), and partly by the use of foreign gold coins, until eventually English gold coins were issued. The famous noble of Edward III., with its show of four things, "king, ship, and sword, and power of the sea," was supposed to be of the value of eighty pennies, and was actually in weight about ten per cent heavier than the sovereign.

(3) *Unrated and Rated Bi-metallism.* When foreign gold coins circulated along with English silver coins, their value was determined by market considerations, and we have an example of unrated bi-metallism of a rudimentary kind. In general, however, when a government coined both metals, it also fixed by law and proclaimed the rate of exchange, thus establishing rated bi-metallism. In England the first ratio adopted (1343) was 13 of silver to 1 of gold, but as the market ratio was 11 or 12 to 1, the legal ratio was altered three times within seven years. If a government continues to coin both metals whilst in fact they circulate at the market ratio, we have what has been called the system of *parallel* standards.[1] It is assumed under any of these forms of bi-metallism that both metals are coined in the quantity desired for the convenience of the people, and that either can be used in payment at the option of the debtor. The question as to the conditions (if any) under which the legal ratio will remain stable for a long period will be treated later.

(4) *The Composite Legal Tender System.* According to this system one metal only is coined and is legal tender to an unlimited extent, whilst for convenience other metals are coined and made legal tender to a limited extent. Thus in England at present gold is freely coined and full legal tender, whilst silver and bronze are used for supplementary token coins.

(5) *Unlimited Legal Tender with Suspension of Coinage.* In recent years several countries (*e.g.*, those forming the

[1] *Cf.* Jevons, *Money*, p. 95.

Latin Union) whilst in other respects retaining the system of rated bi-metallism, have suspended the coinage of standard silver coins, the system thus degenerating into the *étalon boiteux* or limping standard.

In India the coinage of silver has been suspended though still the only full legal tender; but the government is bound to give silver rupees for gold at a fixed rate (namely, fifteen to the pound sterling).

## CHAPTER XIII.

### GRESHAM'S LAW AND ITS APPLICATIONS.

§ 1. *Gresham's Law.*[1] In its briefest and most common form of statement, Gresham's law asserts that *bad money drives out good money.* The objections to this mode of statement are first, that it is only under certain conditions, as shown below, that good money is displaced by bad money, and secondly, the process in question is better described as a withdrawal, rather than a driving out, of good money. The law rests on the fact that for good money there is an alternative use as metal for export or melting, and if it is worth more for this purpose than for currency, it will not be used as coin. The law may be illustrated in its simplest form by reference to English monetary history. It is well known that in the mediæval period the fineness of the silver coins remained unimpaired (until the reign of Henry VIII.), although successive reductions were made in the legal weight. There is good reason to suppose that these reductions in weight were simply recognitions of accomplished facts, the general average of the currency having gradually become reduced through wear and tear. The issue of full-weight new coins would, according to Gresham's Law, have been use-

[1] So called by Mr. H. D. M'Leod in honour of Sir Thomas Gresham (founder of the Royal Exchange in the time of Elizabeth), who is supposed to have first enunciated the principle. It is worth noting that Gresham himself, on several occasions, dealt with coin according to his own law. He was an adept smuggler — on behalf of the Crown. See Burgon's *Life.*

less unless the old coins could have been effectively withdrawn, which in those days would have been a very difficult operation.

It is obvious that once a coinage comes under the influence of Gresham's Law it deteriorates rapidly, the good coins being chosen for export or melting. Thus it was calculated that in England, in 1869, thirty-one and a half per cent of the sovereigns and about fifty per cent of the half-sovereigns were below the legal weight, and in 1888 the figures had risen to forty-six per cent and seventy per cent respectively.[1]

At the same time, however, it must be observed that the light coins in this case passed current in the ordinary course of trade at the same value as those of full weight; that is to say, the depreciation was only recognised effectively in Government offices and the Bank of England. Similarly it may be pointed out that at present in France and other countries silver coins of half their nominal value circulate side by side with gold coins and are equally legal tender to any amount. The explanation of these and similar facts is found in the limitations of Gresham's Law.

§ 2. *Limitations of Gresham's Law.* In the first place, some force must be allowed to the influence of habit. People get used to passing coins at their nominal value, and they do not consider the precise weight or the integrity of the image and superscription any more than they regard the cleanness or dirtiness of bank notes — *non olent.* If they are assured by experience that they can pass them in their turn, that is enough. Shop-keepers and other creditors often cannot choose, and are glad to get any payment, and the working classes in particular are the last to notice the quality of the money in which they are paid. It is only when the difficulty in passing light coins at the legal rate is generally recognised that Gresham's

[1] The evil was remedied for the time by the Coinage Act of 1891.

Law has its full effect, and eventually the depreciation is recognised and a reversion is made to currency by weight.

A more important principle, however, in counteracting Gresham's Law is the principle of limitation. With a certain level of prices and a certain amount of pecuniary transactions to be effected, a certain quantity of currency of some kind is required for internal trade. Thus however small the metallic value of the coins may be — if they are limited in number, they may retain their nominal value and circulate side by side with full-weight coins. In the case of France (noted above) the necessary condition of the free circulation of the over-valued silver is found in the suspension of the coinage of silver. The best example, however, is furnished by the case of inconvertible paper (as in the early years of the Bank Restriction in England), which if duly limited may circulate at the same level with gold.

This principle of limitation is also the foundation of a sound system of token coins.

§ 3. *Token Coins.* A token coin, as the name implies, is a coin the nominal value of which is avowedly above the metallic value (even after allowing for the cost of coinage). The *raison d'être* of token coins is found in their more convenient size, the importance of which may be realised by thinking of a golden penny which, if of full value, would weigh about half a grain and be about $\frac{1}{90}$ of the size of a three-penny bit. Logically bank notes are of the same monetary species as tokens so far as their object is to form a substitute for masses of coin which are found to be too bulky and heavy.

In order that token coins may retain their scarcity value, not only must the government limit its own issues, but it must prevent issues by other people. This object is obtained partly by making the coinage difficult of imitation and imposing heavy penalties, but principally by limiting the amount for which such coins can be offered as legal tender.

At various times in the history of England tokens were allowed to be issued by private persons. The objections are obvious and soon become apparent in practice. The high profit induced people to issue as many as they could force into circulation whilst the area of circulation was necessarily limited by the credit of the issuer. "Probably more than twenty thousand tokens of different kinds were in use in England[1] between 1648–1672."

It is worth noticing that in England at the present time complaints are often made of the scarcity of silver and of farthings, which shows that in spite of the enormous profits (at present over 100 per cent on silver) the government has a due regard for the principle of limitation.

This principle may be farther illustrated by reference to the closure of the Indian Mints (1893) (to raise the value of the rupee), and the cessation of the coinage of silver (or issue of silver certificates) in the United States (1893), in order to prevent a recognised depreciation.

A token coin is a coin for which there is a very heavy seigniorage (or charge of making). It follows by analogy that any seigniorage (above the actual cost) is synonymous with debasement unless supported by the principle of limitation.

§ 4. *Difference between the Mint Price and the Market Price of Gold.* In England there is no charge made for coining standard gold, and accordingly it might be thought that the market price could never differ from the mint price. The mint price is in effect the definition of the weight of a sovereign, and the old method of expressing it was by ordaining that 20 pounds weight Troy of standard gold should be coined into 934 sovereigns and one half-sovereign — which works out to £3. 17. $10\frac{1}{2}$ per oz. In practice, however, no one who wishes sovereigns for bar gold takes it directly to the mint, but sells it to the Bank

[1] Cf. *Money and Monetary Problems*, fourth edition, p. 48.

of England or in the market. The Bank of England is compelled by law to offer £3. 17. 9 for every ounce of gold tendered, the difference of $1\frac{1}{2}d.$ being of the nature of a brokerage or commission for getting the gold coined. But the price of gold in the market may rise somewhat above this rate if for any special reason bar gold is preferred to coined gold. This may happen through an exceptional demand for use in the arts or for export to foreign states which desire to accumulate gold for political or other reasons, or for export to balance international indebtedness.[1]

For some time after the gold discoveries in Australia the market price there was far below the mint price in London, being said to have fallen at one time in South Australia to 45*s.* and in Victoria to 60*s.*[2] The main reason was that the banks were obliged to pay in coin, and there were no mints. Other cases in which the market price of gold differs from the mint price are when the currency is worn or debased and the fact is recognised and acted on, when inconvertible paper is depreciated, and when in a system of bi-metallism the legal ratio differs from the market ratio. The first case is an example of Gresham's Law, and the two last will receive separate treatment.

[1] See the chapter on the *Foreign Exchanges.*

[2] Tooke's *History of Prices*, Vol. VI., p. 775.

## CHAPTER XIV.

### THE QUANTITY THEORY OF MONEY.

§ 1. *Abstract Character of the Quantity Theory in its Simplest Form.* "That an increase of the quantity of money raises prices and a diminution lowers them is the most elementary proposition in the theory of currency, and without it we should have no key to any of the others." [1] In this passage, as in so many others, Mill has often suffered from quotation without context. As a matter of fact, he carefully points out that the proposition is only true in "a simple and primitive state of things," and that it must be received with many qualifications "which under a complex system of credit like that existing in England render the proposition an extremely incorrect expression of the fact." [2]

In order to bring out clearly the central truth of the theory and the modifications necessary to make it hold good in a modern industrial society, it seems best to begin with a very simple hypothetical case and to advance step by step towards the complex reality of present conditions.[3] This method of procedure is analogous to that adopted in physics and other sciences, in which in the first instance bodies are assumed to be perfectly rigid and without friction, whilst in actual problems these and many other qualifications have to be introduced.

To isolate the influence of the quantity compared with

[1] Mill's *Principles*, Bk. III., Ch. VIII., § 4.

[2] *Ibid.*

[3] Cf. *Treatise on Money*, Pt. I., Ch. V., for a fuller statement.

the transactions (for it is clear, as in every case of value there must be a correlative term) a "hypothetical market" may be constructed under the following conditions: —

(1) No exchanges of commodities are to be permitted unless money passes from hand to hand at every transaction, credit and barter being alike excluded.

(2) The material of the money in circulation must be considered as useless in itself except for the purposes of effecting exchanges; that is to say, there must be no hoarding, and no demand for the money material for industrial purposes. It follows that money is regarded solely as an instrument of exchange.

(3) All the money must be put in circulation, and all the commodities must be offered for sale; or in other words, every one is bound to exchange goods for money or money for goods. Under these very simple conditions let it be supposed that there are 10 traders each with one commodity and no money, and one trader with all the money, viz. 100 pieces, and let all the 10 commodities to the eyes of these traders appear of equal value.

When the market is opened, all the money is offered directly against all the goods, and it follows that the price of each is 10 pieces. If the amount of money had been 1000 pieces (commodities being the same), prices would have been exactly 10 times as much, and similarly if there had been 100 commodities (the money remaining the same), the average of prices would have been one-tenth of the original figure.

Under these very simple conditions it is clear that the value of money (or the level of prices) varies inversely as its quantity, and directly with the number of commodities; if the money is increased, prices rise, and if commodities are increased, prices fall exactly in proportion to the increase.

§ 2. *Effects of Rapidity of Circulation.* Let it now be supposed that the trader with the money, instead of wanting all the things equally, only wishes to purchase one

In this case he gives the whole of the money (100 pieces) to trader number one. If we suppose that trader number one only requires the commodity of number two, and so on round the circle of the 10 traders, then when the exchanges are complete every commodity has been sold for 100 pieces, the only difference being that whilst before each of the 10 traders was left with 10 pieces, now only the tenth trader is left with the whole of the money. But in this second case the level of prices is 100 as against 10 in the former case, although the quantity of money is the same, and the number of commodities and transactions are the same. The explanation is found in the fact that in effecting the series of transactions every piece of money in this second case has been used 10 times instead of once, as in the first case. The phrase "rapidity of circulation" is obviously ill-adapted to express this new factor in raising prices, but *quieta non movere* is a good maxim even as regards the terminology of currency, and it is doubtful if any phrase would be sufficiently descriptive to dispense with explanation. The principle in question may, however, be stated so as to bring out the analogy to the principle of simple quantity in this form: *The effect on general prices must be the same when, in effecting a certain amount of transactions, one piece of money is used ten times as when ten pieces of money are used once.*

That the quantity of money and the rapidity of circulation are *veræ causæ* affecting the general level of prices may be proved by reference to actual facts. The only point to bear in mind is, that in general they do not offer a full and adequate explanation of the movements in prices. There can, however, be no question that the change from the low level of prices of the mediæval period to the higher level which was attained after the seventeenth century was largely due to the increase in the quantity of silver. And in modern times there can be no question that the greater rapidity of circulation is one of the reasons why the enormous increase in mone-

tary transactions has not produced a proportionate fall in prices.

§ 3. *Introduction of Other Modifying Influences.* We may now bring in the various conditions which were at first excluded and observe their effects. As regards barter, it is clear that if some things are directly exchanged by barter, not by money, there is so much more money left over to be given for a smaller mass of commodities. In this way the adoption of barter tends to raise prices in a twofold way.[1] It needs no demonstration that the nominal value attached to things bartered will correspond to the value of similar things sold for money.

Next, we may observe that in general the money substance is not useless for other purposes, but is, on the contrary, "precious." It follows then, taking gold as the example, that the demand for other purposes dominates the supply available for money. There are, for example, the demands for the arts, for military chests, for public and private hoards. Here an effect of the general law of demand may be observed. If owing to any cause the value of gold falls (*i.e.*, there is a rise in general prices), so far the quantity demanded for the arts tends to increase and so far there is less for coinage. Thus, great gold discoveries tend to raise prices by increasing the quantity of money, but this fall in the value of gold tends to increase the quantity demanded for industrial consumption, and thus the rise in prices is so far counteracted. The argument may perhaps be made more clear if we consider money incomes. If, owing to an increase of gold, general prices rise, money incomes will also rise, being dependent on prices, but the mint price of gold and, with slight variations, the market price remain the same. It follows, then, that people can afford to buy more gold ornaments, and thus there is less gold left for monetary purposes.

[1] The case of barter is well treated by F. A. Walker, *Money*, p. 64.

Under the conditions prevailing in recent years the locking up of large masses of gold in the great national banks has certainly diminished the effective supply of money.

In the preliminary exposition of the quantity theory, nothing was said as regards the original acquisition of the money — the money was supposed to be "given." But although gold is in a sense the gift of nature, it involves in most cases, especially under modern conditions, a high cost of production.

It is as regards the effects of cost of production that the greatest changes have been in the modern theory or rather in the adjustment of emphasis.

§ 4. *Effects of Cost of Production on the Value of Gold.* By the value of gold in a system of gold-standard countries it cannot be too strongly insisted we mean its purchasing power. The purchasing power will, of course, vary according to the thing or things purchased, but for most theoretical purposes we may take those representative commodities which are used as the basis of index numbers as in the well-known systems of the "Economist" and of Mr. Sauerbeck. Now the value of gold in this sense depends upon a number of variable factors some of which have just been examined and some of which (*e.g.*, the influence of credit and of other monetary systems) will be examined later on. All that we are entitled to say as regards the influence of cost of production on the value of gold is that it is one of the forces which affects the quantity in circulation at any time. If in past centuries gold had been obtainable at less cost, there would now be a greater amount in existence than there is, and so far the level of prices would be higher. In the same way the actual cost under present conditions affects the annual supply, and this again affects the quantity in circulation. Thus the recent discoveries in Africa, Australia, and America, and still more the introduction of the cyanide process, have more than doubled the annual supply if we compare

1885 with 1895. It is clear, however, that owing to the great durability of gold, the annual supply is in general small relatively to the total mass.[1] Further only part of the new supplies forms an addition to the coinage of the world. Besides the demands for other purposes, we have to consider the wear and tear of the old coins and the larger the mass, the greater this item becomes. It is obvious also that a sovereign made from gold just extracted from the deepest mine in Johannesburg is of no more value than one made from the gold first found by prehistoric men. It may be further pointed out that under present conditions the cost of the acquisition of gold is extremely variable — we have mines on the "margin" which it hardly pays to keep open, and from the most productive mines "marginal increments" are obtained which hardly pay their share of chemicals and Kaffir labour.

It is obviously absurd to suppose that the value of gold or the average level of prices of the great staple commodities in the world is determined by the present "marginal" cost of production of gold. All that we are entitled to say of the interaction of the value of gold and marginal cost is this: The value of gold, or the general level of prices depending upon a number of variable causes, affects the prices of machinery, of labour, of transport, and of the other factors of production, although, of course, these prices are also affected by various relative causes, as well as by these general influences. If, then, the gold on the margin does not return the cost, — if more gold must be put into the mine than can be got out, — then the margin will recede. This falling off in quantity will so far tend to raise the value of gold or lower general prices.

[1] Taking the figures from Soetbeer's tables, and, for recent years, those of the United States Mint, the total production of gold between 1493 and 1893 was in value about £1,750,000,000. The average annual production between 1873 and 1893 was under £23,000,000, but in 1895 it rose to £41,000,000.

Thus the value of gold is one of the factors which affect the quantity produced. With a high level of prices, gold mining is relatively more expensive than with a low level, and so far production varies. All the mines, however, that yield an exceptional profit are, so long as the profit continues, worked at the highest pressure that is found convenient. It may be worth pointing out in conclusion the way in which the idea arose that the value of gold is ultimately determined by its cost of production. The value of a gold coin, it was seen, is in general (*e.g.*, seigniorage apart) equal to the value of the same weight of bullion. The next step was a mistake of effect for cause. Gold bullion — it was said — is simply a commodity like other commodities, and being of the kind that is produced at different costs, its value depends upon its cost of production under the most unfavourable conditions. It was thus concluded that the value of gold money, being the same as that of bullion, depends in like manner on this marginal cost of the metal. The truth is, as we have just seen, that the value of gold is one determinant in the extension or recession of the margin, whilst marginal increments again constitute one small element in the aggregate quantity of money available.[1]

[1] The following passage from Mill is sometimes quoted as showing that he did not mistake the influence of cost of production: "Alterations, therefore, in the cost of production of the precious metals do not act on the value of money except just as in proportion they increase or diminish its quantity, which cannot be said of any other commodity" (Bk. III., Ch. IX., 3.). But Mill's whole treatment of the question shows that he laid undue stress on the cost of production.

## CHAPTER XV.

### INCONVERTIBLE PAPER.

§ 1. *Inconvertible Paper as illustrating the Quantity Theory.* The nearest approximation to the simple form of the quantity theory is found in the case of inconvertible paper. If the term "inconvertible" be taken strictly and absolutely, — if there is not even a conditional or deferred or anticipated chance of conversion into gold or some other valuable, — then, other things remaining the same, the value of the paper will depend on the quantity issued. The notes (unlike gold) have no value except as currency, and the process of depreciation, which generally takes place, makes the circulation as active as possible. At the same time the issues may take place so suddenly as to furnish an example of the method of difference, — credit, barter, the volume of transactions and other things generally remaining the same. Thus the conditions of the hypothetical market are realised, at any rate to such an extent as to bring out the effect of an increase or decrease in the quantity of money.

The theory of depreciation may first of all be stated in a deductive abstract form, the disturbing causes being pointed out subsequently. It is obvious that a direct appeal to induction would be as fruitless as an attempt to discover the law of gravitation by studying the flights of different birds or balloons.

Take, then, an isolated country with an original circulation of two millions of sovereigns, and let a million of inconvertible one-pound notes be issued in such a way

that they are effectively circulated immediately ; *e.g.*, in the payment of wages. Then this increase in currency will raise prices generally, and, *inter alia*, the market price of gold will rise. But by Gresham's Law the slightest rise in the price of gold will cause it to be withdrawn from circulation, so that, ultimately, the currency will return to the same volume as before, with this difference, that notes have been substituted for half the gold. The market price of gold will fall to the mint price. If now another million of notes is issued, a similar substitution will take place until all the gold is withdrawn from circulation. Beyond this point any further increase in the issues must permanently increase the quantity of money, as there is no more gold to be driven out. Accordingly prices will rise, and the rise will continue, and every further issue will so far cause a further rise. The market price of gold will also rise, and the difference between the market price and the mint price will measure the extent of the depreciation of the notes. The difficult question whether the measure is precisely exact is taken up in a later section.

§ 2. *Modifying Influences.* The effects of the issues will in practice be modified by various influences. Gold may still remain in use as money, an allowance being made for the premium, there being in fact gold prices and paper prices. Very often, however, the government uses its power to force the circulation of the notes and prohibits bargains in gold, and *per contra* accepts its taxes in notes. The paper may become depreciated relatively to gold before the actual increase in quantity has had time to have effect, simply because the paper is discredited and there is fear of future loss. Or again, the notes may not become depreciated in proportion to the quantity issued, because more currency is required, *e.g.*, through a destruction of credit or the demands for war. Possibly also the convertibility of the notes may be considered only as suspended for a limited period. The issues in the United

States in the case of the Civil War furnish an instructive example of these influences.

But whatever modifications are introduced by the force of circumstance, after a certain point has been reached the quantity issued is the dominant factor in depreciation. No matter how stable the credit of the government or how flattering the hope of ultimate convertibility, a fresh issue will cause a fresh depreciation. The history of the Bank Restriction in England is the classical instance. Conversely, if the quantity is limited, inconvertibility need not spell depreciation, as shown in the recent history of France.

When the issues have been "outrageously" increased, the notes may be altogether discredited and become as valueless as scraps of old newspapers. In this case it is true that the depreciation is greater than the quantity, the former being infinite, whilst the latter is only outrageous. The *assignats* of the French Revolution and the notes of John Law's bank after the fall are notorious examples of the extreme limits of depreciation.

§ 3. *The Evils of Depreciated Paper.* The evils of depreciated paper are best seen by referring to the functions of money — primary and secondary. Depreciated notes — especially when, as usually happens, the extent of the depreciation varies from day to day — are obviously a bad standard of value and a bad medium of exchange. The real meaning of previous contracts is vitiated, and that of future contracts is rendered uncertain. Almost the only justification of excessive issues is the impossibility of raising further revenues by taxation at a time of national emergency. But it is easy to see that indirect taxation of this kind offends against the most rudimentary notions of equality. It is well known by experience that in the case of depreciation the mercantile classes and employers generally gain at the expense of labour. Wages do not rise in proportion to the rise in prices of commodities. It is this artificial gain which gives a momentary stimulus

to trade and leads to the cry on the part of traders for further issues. Similarly, a stimulus is given to exports whilst the depreciation is in progress. Besides the working classes, all those in receipt of fixed monetary incomes suffer, *e.g.*, the annuitants of insurance companies and many orders of professional men. In general, also, depreciation involves discredit, both individual and national, and directly and indirectly it promotes crime — especially forgery. If the notes issued are of very small denomination, the danger of forgery is greater, and the poorer classes are the chief sufferers.

§ 4. *The Measure of Depreciation.* Is the premium on gold an exact measure of the depreciation of the paper in all circumstances? The answer to this question is one of the most instructive applications of the theory of money. It is necessary in the first place to get rid of an ambiguity. It may be said — and it often is said — that the only meaning of depreciation in countries with a nominal gold standard, is relatively to gold, and that therefore the premium exactly measures the depreciation. But the evasion of a question is not an answer, and the question really refers to the purchasing power of the paper over things in general, and it may be worded in this way: "If the premium on gold is exactly 100 per cent, — if the market price in notes is exactly double the mint price of gold, — are all other prices, so far as changed by this currency disturbance, precisely doubled, or more than doubled, or not quite? It is plain that prices must have risen to some extent; but the question is as to the precise degree. From the difficulty of determining the particular effects of the various causes affecting general prices the only possible mode of solution is by the deductive method. Accordingly we must provisionally take an isolated country and assume that no other changes occur in credit, the volume of trade, and other factors, and in fact that there is only such an issue of paper as will give eventually a premium on gold of 100 per cent. As the

issues are made, gold (with other things) will rise in price reckoned in paper, and will therefore be driven from circulation. But as the country is supposed to be isolated, the gold must remain there. Accordingly there will be an increase in the supply of gold as a commodity, whilst there will be no corresponding increase in the demand, other things remaining the same. It follows then that gold will fall in exchange value relatively to other commodities. But the values of all commodities, including gold, are now reckoned in notes, and therefore this relative fall in the exchange value of gold means, expressed in terms of prices or notes current, that the price of gold has risen less than that of commodities in general. In this case, then, when the premium on gold is 100 per cent, or gold is just doubled in price, the prices of other commodities must be more than doubled, and the depreciation of the paper relatively to commodities in general is greater than compared with gold, or in other words, the premium on gold is not an exact measure of the depreciation, being in fact too small.

In the same way it may be shown that in the converse case when a government is about to resume specie payments (*i.e.*, make its notes convertible into gold on demand) the relative value of gold will rise owing to the demand for currency. In this case there might be a premium on gold after prices in general had fallen to the normal level.

We may now introduce some of the qualifying influences, taking as the example the process of depreciation. If the country produces gold, the fall in its value will so far tend to lessen the annual supplies. Again, if we take into account foreign countries, it may happen that they will demand gold to a greater extent than it is liberated by the country in question. In this case the premium on gold might be even greater than the depreciation of the notes, and, as was said during part of the Bank Restriction period, the notes were not depreciated, but gold was

appreciated. And this is very likely to occur, because inconvertible notes are generally issued by a great power in the event of war, and there is nothing like war to cause an exceptional demand for gold. In the converse case the withdrawal of notes on the resumption of specie payment may very probably be accompanied by an improvement in credit, which by raising general prices so far tends to lower the value of gold.

## CHAPTER XVI.

### THE EFFECT OF CREDIT ON GENERAL PRICES.

§ 1. *On Forms of Credit or Substitutes for Metallic Money.* It was assumed in the preliminary statement of the quantity theory, that money passed from hand to hand in every transaction, credit in every form being unknown. This condition of the primitive hypothetical market is so far removed from modern financial conditions, that the quantity theory must be re-examined in the light of the influence of credit. As regards the development of the forms of credit, it will be sufficient for the present purpose to observe that the general order of progress appears to be marked by four stages: book debts, bills of exchange, bank notes, and cheques. Later on special attention will be directed to the principles of banking, — the latest and most important development of credit, — but in the meantime the problem is to observe the effects of credit in general as a substitute for metallic money.

The amount of transactions that are now settled without the direct intervention of gold in modern industrial societies is enormous. The clearings of the London Banks alone often amount to over £32,000,000 in a day, whilst the amount of gold in circulation in the United Kingdom probably does not exceed £90,000,000. The continuous growth of banking is indicated by the extension in the number of branches and by the admission of relatively small accounts. And it must be noticed that the development of the cheque system has only partially displaced the earlier forms of credit, so that, on the whole, probably

only a small fraction of one per cent of wholesale transactions is effected by the immediate payment of gold.

Seeing, then, that the actual medium of exchange in a great industrial country consists of credit instruments, various questions are suggested as regards the validity and scope of the quantity theory of money. Is the theory still true of standard metallic money or is it only true of this money, plus all these forms of credit to the extent of their nominal value? Is the actual metal now an insignificant factor? Can prices rise or fall indefinitely by the expansion or contraction of credit, or what are the real limits (if any) to such a rise or fall? Finally, can it be said that in every transaction — in every offer or consideration of a price — the dealers have in their minds' eye a certain bulk of standard gold, or that they measure values with the pound sterling just as they measure length by the yard?

§ 2. *General Prices and Relative Prices.* Throughout this inquiry it must be carefully borne in mind that we are dealing with general prices and not with particular or relative prices, and the principle applies that, after any disturbance of general prices, forces come into play which tend to adjust relative prices to relative values. To take an example under any conditions similar to those at present prevailing, whatever be the movement in the general level of prices, — whether index numbers fall or rise, — the average ox will be worth more than the average sheep, and apart from particular influences affecting the demand and supply, the relative values of the ox and the sheep, however expressed in prices, will remain unchanged. General movements in prices must be due to general causes, whilst relative changes are due to relative causes.

A similar principle is exemplified in the particular case of movements in stock exchange securities. There the level of prices may be high or low, and one of the principal determining influences is the rate of interest. If, owing to general causes, the rate of interest falls, the prices

of all securities so far tend to rise, but this general rise will so far leave their proportionate values undisturbed. There will, no doubt, be certain relative changes due to the same causes as bring about the fall in the rate of interest, but on the whole so far as this factor is concerned relative values will remain undisturbed, and the yield to the purchaser at the higher market prices will still be in an ascending scale through consols, railway debentures, preference stocks, ordinary stocks, bank shares, and so on. At the same time, however, some particular group of securities may rise or fall, owing to special causes, *e.g.*, bank shares owing to the failure of a great bank.

To revert to the influence of credit on general prices, the events that precede and follow commercial crises illustrate in a practical way the difference between general and relative prices. The speculation which precedes a crisis generally, it is true, begins with some particular group of commodities or securities, but what is called a sympathetic rise is sure to follow in other groups until the rise becomes general. Similarly in the case of collapse, the sympathy of markets is equally marked. I proceed to notice the limits to a general rise or fall in prices due to an expansion or contraction of credit.

§ 3. *All Credit rests upon a Metallic Basis.* If we consider the normal case of modern industrial societies in which gold is the standard, and the forms of credit are simply proportioned to the convenience of the users, it is easy to show that all credit rests upon a basis of gold. The necessity for such a basis imposes a threefold limit upon a rise of prices due to an inflation of credit.

In the *first* place, although wholesale transactions are for the most part effected by credit instruments, there are still in every country a great mass of payments which require either metallic money or some form of simple legal tender such as bank notes. Such, for example, are the payment of wages and a large part of retail transactions — they require "cash" in the form of metal or

notes. But to anticipate a little the principles of banking, every highly developed industrial society has found it desirable to place the issues of bank notes under stringent limitations. The effect of these limitations is in general that every bank is obliged to keep, directly or indirectly, a considerable gold reserve against its notes. Suppose, then, that a general rise of prices occurs through an inflation of credit; retail prices will rise, and wages will rise, and on the whole more cash will be required. Thus in the end a drain will be made on the ultimate banking reserves of the country. As a consequence there will be a rise in the rate of discount for advances, and this rise in the rate will impose a check on the expansion of credit.

*Secondly:* Under the supposition of a general rise in prices in any particular country owing to credit influences, a stimulus will be given to imports — the foreigner seeking the dearest market to sell his goods — and a check to exports. Thus the balance of international indebtedness will turn against the particular country, and a foreign drain of gold will ensue. If there is simultaneously an expansion of prices in all the great commercial countries, this particular effect would not be felt, but the accumulated internal drains would strain the metallic reserves.

*Thirdly:* Apart from these considerations, namely, the effects of internal and external drains of gold, another influence is sometimes of importance. The price of gold is fixed by law (as already explained), and accordingly, so far as the raw material is concerned, the price of gold ornaments is also fixed. If, then, through credit, prices could rise indefinitely, — if there were no real check to the rise in prices of commodities, — these prices would be distributed in continuously increasing profits and wages. But if we suppose that all money incomes (dependent on industry) are doubled, trebled, and indefinitely multiplied, whilst gold remains fixed in price, every one can buy gold watches, plate, and other ornaments to a much greater extent than before. This exceptional demand for the

arts can only be met by withdrawals from the currency in circulation, or from the reserves. We thus discover a third drain which would arise after a certain inflation of prices. At the present time, taking the world all over, the demand for the arts already absorbs a large part of the annual supplies, so that any exceptional demands must fall upon gold used as money in some form.

§ 4. *Conclusion of the Argument as regards One Country.* Credit has an important influence upon the level of prices in any one country: *first*, because it economises gold, and thus — as with barter — leaves the gold to circulate and be offered for commodities, and thus raises prices; and *secondly*, it acts directly upon prices by increasing the demand as effectively as metal — so long as the credit is accepted. But in both cases it is limited by the quantity of the precious metal. In the first place, we cannot economise more gold than there is, and the limits of this level of economy are soon reached. In the second case, if credit demands raise some prices, then if the rise is permanent, other prices must follow on the principle that relative prices must be adjusted to relative values. If wholesale prices rise in one great market, other markets are sympathetically affected; retail prices follow, and are accompanied by a corresponding movement in money profits and wages, and a point is soon reached at which one or all of the three drains begin to check the advance.[1]

§ 5. *The Influence of Foreign Countries.* So far in treating of the influence of credit the attention has been mainly directed to one country, although it has been found necessary to notice in a simple form the effect of foreign drains. The general influence, however, of other countries in affecting the price level in any one country requires a

[1] The absolute necessity of the metallic basis, with special reference to England, has been admirably worked out in Bagehot's *Lombard Street;* in fact, this is the moral of the whole book. Sir R. Giffen's work on *Stock Exchange Securities* shows equally well the real limits to credit transactions.

more careful examination. The monetary conditions which prevailed in England for the two years preceding the middle of 1896 show that the quantity theory, even with the modifications already introduced, cannot be applied to any single country considered as isolated from the rest of the commercial world. During the time alluded to the general level of prices, as shown by index numbers, fell to a lower level than it had attained for half a century. At the same time there were unprecedented accumulations of gold in the Bank of England, the bank rate remained at the official minimum of two per cent, whilst in the outside market rates were often below one per cent. There was every appearance of a glut of "money." Consols reached a record price, and other securities moved upwards in sympathy. It seemed also as if the conditions generally were favourable to an outburst of speculation as instanced by the inflation in African gold mines. And yet, as already stated, the prices of commodities generally did not respond. Now it certainly cannot be maintained that prices in England were kept down because the metallic basis was too small to admit of an expansion of credit, and we are led to search for an explanation in a wider area.

It will be found not only that in any one country must relative prices be adjusted to relative values, but that a similar principle applies to all countries taken together, or more strictly speaking, to a system of countries with commercial and financial connections. After making allowance for various natural, *quasi*-permanent, and special causes of difference (which will call for a consideration in connection with the principles of foreign trade), the level of prices in any one country cannot remain above the general level of the other countries in the commercial system.

The truth of this principle is at once seen in the case of the particular commodities that form the great staples of international trade; *e.g.*, wheat, cotton, wool, etc. After

making allowance for the cost of transport the effects of duties and temporary local demands prices must be the same in all the great markets of the world. But the same thing is true of everything which can be readily bought and sold in any country, and of which the cost of transport is not very great. The more commerce is developed, so much more do the general low prices of the world pull down the high prices of any particular country.

Any movements, however, in these prices must affect sympathetically the prices of other things that cannot be transported. If, for example, agricultural produce falls in price, then also agricultural rents will fall, and therefore also the price of land. We have to consider further the effects of substitutes of all kinds as intensifying this sympathetic influence; one kind of food affects others, and similarly of clothing, and indeed there is scarcely any article of general consumption for which a substitute cannot be found.

The general principle that relative prices must be adjusted to relative values operates in this case through the balance of trade. Without entering into the theory of international trade, it is obvious that prices in any one country cannot remain very high whilst they are falling in the rest of the commercial world. The stimulus given to imports and the check imposed upon exports would render a readjustment of the price levels necessary.

§ 6. *General Conclusion regarding the Quantity Theory in Gold-Standard Countries.* We thus reach the conclusion that a relative scarcity of gold, or a short supply compared with the work to be done, in a system of gold-standard countries commercially connected must make itself felt in some part of these countries. The effect may be felt in one of two ways. In the *first* place, the ultimate banking reserves in the great centres of commerce may be diminished, and as a consequence credit transactions may be contracted. *Secondly*, however, the relative scarcity may operate on the circulating medium

directly, especially in countries in which credit is very little developed as in most new countries which produce mainly raw materials.

But in either case there must be interaction between the various countries. If, for example, owing to a contraction of currency in backward countries, prices fall, the fall tends to spread to other more highly developed countries. And thus a real scarcity at the outskirts of the commercial world may be coincident with an apparent abundance of gold at the great centres. This appears to be, at any rate, a partial explanation of the phenomenon so noticeable in recent years ; viz. general prices falling with an apparent superabundance of gold for banking purposes.

We may now express the value of gold in similar terms, *mutatis mutandis*, to those employed in the case of any other commodity, by reference, namely, to the general law of demand and supply. The value of gold or the general level of prices throughout the gold-standard countries will be so adjusted that the gold used as currency or as the basis of credit will be just sufficient for the purpose. Or the equation between demand and supply in this case may be expressed : Competition will go on between those who hold the metal on the one side and those who wish to obtain it on the other until such a level of prices (or such a value of gold) is reached that the quantity demanded at that level (or value) is just equal to the quantity offered.

It follows, then, that, strictly speaking, after time has been allowed for the difficulties in the readjustment of prices, there must always be a sufficiency of gold. If there is not enough at one level of prices, then prices will fall until there is enough at the new level. Further, the actual level, whether high or low, once all contracts, etc., have been adjusted, is a matter of indifference. The adjustment, however, in general involves serious practical difficulties and social disturbances.

So far in the general argument the advance made from

the hypothetical market towards the reality of the actual world has only reached the position that in a system of gold-standard countries the price levels of the different countries are adjusted to the general level in spite of the very great differences in the development of credit.

But, as already indicated, even under present conditions, a large part of the commercial world, directly or indirectly, uses silver as the standard. We have now to consider what is the nature of the interaction of general prices if countries have different standards, as, for example, gold and silver. The problem presents considerable theoretical difficulties, and the solution has important bearings upon actual practical questions.

## CHAPTER XVII.

### OF THE INTERACTION OF GOLD PRICES AND SILVER PRICES.

§ 1. *The Quantity Theory and Silver Prices.* It is obvious that the arguments regarding the determination of general prices in gold-standard countries may be applied, *mutatis mutandis*, to general prices in silver-standard countries. In some respects, indeed, the application of the quantity theory is in this case more simple because in general we have a closer approximation to the conditions under which it is strictly true. The system of credit, for example, is less highly developed, and in proportion much more metallic money is required to effect a certain mass of transactions. On the other hand, however, the working of the quantity theory is partly obscured by custom, and competition is not so general and effective as in the gold-standard countries.

At the same time, as regards the great staples of international trade we must assume that there is effective commercial competition between the silver-using and the gold-using countries, and we must further assume for the exposition of the theory that industrial competition in the silver-standard countries is at any rate effective to the extent that relative prices tend to be adjusted to relative values.

According to this view, just as the price of any commodity in a gold-standard country depends upon two sets of causes — first, the general causes which determine the general level of prices, and, secondly, the causes which

determine the relative value of the particular thing; so also in precisely the same way the price of any commodity in a silver-standard country depends upon two sets of causes — general and special.

§ 2. *Silver Prices and Gold Prices.* Thus any commodity which is bought and sold in both systems of countries has a silver price in the one system and a gold price in the other. If there were no international trade, these prices might be considered as independent, but as soon as trade is established, it is plain that in the case of any staple commodity, after allowing for cost of carriage, the price must be the same in both countries whether reckoned in gold or in silver. For the sake of definiteness of illustration, suppose that a commodity sells in an English port for an ounce of gold, or rather the coins equivalent thereto. After allowing for transport, etc., it will sell also in a Chinese port for a similar amount of gold, or rather for the silver equivalent to this gold (silver being there supposed to be the standard). But the amount of silver will depend on the ratio between gold and silver (or, in other words, on the gold price of silver or the silver price of gold). If in the great markets of the world one ounce of gold exchanges for sixteen ounces of silver, it is practically a matter of indifference to a trader whether he receives gold or silver at this ratio.[1] He will convert gold prices into silver prices (and conversely), simply according to the market rate of exchange.

§ 3. *Causes affecting the Ratio between Gold and Silver.* At this stage the difficult question arises: What causes determine this ratio between gold and silver? This question may be approached from two opposite points of view.

In the *first* place it may be said that in gold-standard countries silver is a commodity like other commodities, and its gold price will depend upon demand and supply —

[1] The minor differences due to the state of the foreign exchanges, currency laws, etc., are, for the present, omitted.

just as the gold price of iron or tin or any other metal. Similarly, also, in silver-standard countries the price of gold — it may be said — will be determined in the same way. The actual ratio at any time will be adjusted so as to equate the demand and supply in both sets of countries. This is a simple and attractive solution, and on this view movements in the ratio between gold and silver are only of importance to goldsmiths and silversmiths and their customers ; to the rest of the world they pass as media of exchange, everywhere convertible at a fluctuating but certain rate. If, for example, there are great discoveries of silver or hoards are unlocked and dissipated, or silver coinages are demonetised, according to this argument the increase of supply will tend to lower the gold price of silver ; and conversely, if by the actual closure of mints or by speculative dread as regards the future, the demand for silver slackens, there will be a farther fall in its gold price. It is assumed, however, that the ulterior consequences whether to gold-standard or to silver-standard countries are practically of no importance.

In the *second* place, however, the question may be approached from the point of view taken up in the two preceding sections. It may be argued that general gold prices depend on the quantity of gold compared with the work to be done by it (account being taken also of the various modifying influences already considered) and similarly of general silver prices. Suppose now that gold prices move downwards whilst silver prices, being under different influences, remain the same. If the ratio of gold to silver changes in exactly the same proportion as the general level of gold to silver prices, there will be no disturbance of trade. The exports from the gold countries will sell for the same amount of silver as before (because silver prices have remained the same), but this silver being depreciated will be worth so much less gold than before, and thus these exports will share in the general movement of gold prices. Similarly, the exports from

silver countries will obtain less gold than before, but this gold will command the same amount of silver. In this case the natural course of trade would remain the same, a variation occurring simply in the relative values of the two metals.

It may be shown, moreover, by an analogous train of reasoning that if the ratio is not adjusted to this change in the levels of gold and silver prices, there will be a disturbance in trade corresponding to the failure of adjustment.

This will be best seen by taking a numerical example. Suppose that gold relatively to commodities has appreciated so that the aggregate index number has fallen from 100 to 75, or that so far as general causes are concerned prices have fallen 25 per cent — some more and some less, according to relative causes of difference. *Inter alia* we may suppose that the gold price of silver in London has fallen from 60*d.* per ounce to 45*d.* It is obvious that a corresponding ratio must be attained in the silver-standard countries of the East. For under these assumptions, silver prices in the East not having fallen, exports thither will obtain the same silver as before, but these same commodities in the gold-standard countries will obtain 25 per cent less gold. Thus until the gold price of silver in the East has fallen there will be an exceptional profit on exports. Conversely, it may be shown that an exceptional loss would arise on exports from the East until the ratio is adjusted.

It will be observed that in the first case taken the fall in the value of silver (or in its gold price) is ascribed to causes primarily affecting that metal, and so far leaving the relative values of other things undisturbed. This may be conveniently called the specific depreciation of silver.

In the second case, however, the depreciation of silver (or the fall in its gold price) is supposed to be part of the general fall in gold prices, or the depreciation of silver is due to the appreciation of gold.

Similarly, *mutatis mutandis*, a disturbance in the ratio might take place through causes primarily affecting gold (its price in silver falling compared with other silver prices) or through causes affecting the general level of silver prices, and gold falling in sympathy.

Finally there may be more than one of these sets of causes operating at the same time; that is to say, there may be relative changes affecting gold or silver or both, and also general changes affecting the levels of gold or silver prices or both.

§ 4. *The Action of Gold and Silver Prices on the Ratio of Gold to Silver.* It is clear from the foregoing argument that if there is any change in the relation of general gold prices to general silver prices there must be a corresponding adjustment of the ratio. Otherwise there would be an exceptional profit or loss in all international trade between the two systems of countries. The only alternative would be to suppose that the great staples of international trade were not affected by the general movements in prices. This supposition is, however, plainly opposed to experience, as they are in fact in general the first to be affected. It is also opposed to the general principle that relative prices must be adjusted to relative values.

It cannot, however, be assumed that the ratio of gold to silver depends entirely on the relation of general gold and silver prices. If we consider, for example, the recent depreciation of silver, — the fall with frequent and deep fluctuations from 60*d.* to 30*d.* per ounce, — some part of this depreciation at any rate would be ascribed to causes primarily affecting silver, such as cheapness of production and demonetisation. No one would maintain that the fall was due simply to those general causes which have brought about a fall in general gold prices as indicated by the index numbers.

§ 5. *Action of the Ratio on the Gold and Silver Prices of the Great Staples of Trade.* But if it is admitted that the

ratio of gold to silver may change owing to specific or relative causes affecting either metal, and also that such a change may not be simply a temporary oscillation of the market, but of a permanent nature (and the adjective "temporary" will hardly cover a quarter of a century), it follows that an adjustment must be made in the gold prices and the silver prices (one or both) of the great staples of trade. If, for example, the silver prices of exports from the East, and also their gold prices in the West, remained altogether unaffected by the disturbance in the ratio, trade would become impossible. For under the assumption of a fall of 50 per cent in the gold price of silver (other prices being undisturbed) exports from the East would obtain the same gold as before, but this gold would realise double the amount of silver, whilst this silver would have the same purchasing power per ounce as before, thus giving a real profit of 100 per cent on every cargo of exports. Similarly, exports from the West to the East would only obtain the same silver as before, and this being converted into gold would realise only half the former number of sovereigns, and thus every cargo in this case would involve a loss of half the former value. Such exceptional loss and profit are manifestly unstable, and so long as the ratio continues to fall there must be a tendency towards readjustment either in gold prices or silver prices or both; that is to say, either silver prices must rise or gold prices must fall.

§ 6. *Action of the Ratio on General Gold and Silver Prices.* In the last section the reasoning has only been applied to the great staples of trade between gold-standard and silver-standard countries. We must, however, again apply the principle that relative prices must be adjusted to relative values. Suppose that the adjustment takes the form of a fall in gold prices. It is clear that this fall in the gold prices of very important groups of commodities must, according to the explanation already given, affect sympathetically other groups. It must be

remembered, also, that if general gold prices and general silver prices remained undisturbed with such a fall as has recently occurred in the gold price of silver, it would be exceptionally profitable to export all kinds of things, in fact, everything exportable and salable, from the East, whilst it would be exceptionally unprofitable to send anything in return by way of exports thither.

The only alternative to a readjustment of general gold and general silver prices (one or both) under the assumption of a permanent change in the ratio, is a cessation of trade. And to some extent there is reason to believe that the recent depreciation in silver has encouraged silver-standard countries to trade with one another. It is, however, against the principles of foreign trade to suppose that any well-established trade can be altogether destroyed merely by currency disturbances, especially such as are due to a change in the ratio of gold to silver.

§ 7. *General Conclusion with Reference to the Quantity Theory of Money.* We have now reached the last of the great modifying influences which have been successively introduced into the simple conditions originally assumed. So long as one half, or at any rate, a very large part, of the commercial dealings of the world are carried on with a silver standard and the other half or remainder with a gold standard, there must be an interaction of the two standards. This interaction may take different forms in different circumstances,[1] although in the preceding argument there has usually been an implied reference to the case which in my opinion represents most fairly the readjustment of recent years — that is to say, a fall in general gold prices due to a considerable extent to the fall in the value of silver. But whatever the precise form which in any case the interaction may assume, the central fact remains that we cannot look upon general gold prices and

[1] For a complete account of the different theoretical cases possible, see my *Essay on Causes of Movements in General Prices*, "Money," fourth edition, p. 342.

general silver prices as two independent systems each determined by the quantity of the particular precious metal relative to the work to be done by it. It is quite possible, on this view, that general gold prices may for a long period remain below the level which the quantity of gold would support owing to a specific fall in the value of silver. This only implies that gold is not always in the most active circulation possible or credit in the most stable condition, and the most extreme supporter of the simple quantity theory can hardly maintain the opposite.

# CHAPTER XVIII.

## BI-METALLISM.

§ 1. *Meaning of Bi-metallism.* The essence of bi-metallism is that gold and silver should in every respect be placed on an equal footing for monetary purposes. This general condition involves the following derivative conditions: —

(1) Both metals must be coined in unlimited quantities at the mints as they are offered by the holders of bullion. It is desirable to point out explicitly that this condition does not imply that a person can take silver bullion to the mint and receive back gold coins. Bi-metallism in its most extravagant guise is not alchemy. Nor is it implied that the coinage is necessarily gratuitous — it is sufficient if a fixed and equivalent seigniorage is charged. The term "unlimited" is simply meant to emphasise the distinction between standard and token money. There might be under bi-metallism a certain limited quantity of silver token coins.

(2) Both metals must be legal tender to any amount and in any proportion at the option of the debtor. Here again the reference is to standard money. A system under which the full legal tender of both metals is retained, whilst the coinage of one is suspended or annulled has been well called limping bi-metallism (*étalon boiteux*). The qualification "at the option of the debtor" is also characteristic of standard money. In England at the present time a debtor might pay a debt of £10 in several different ways; *e.g.*, by 10 sovereigns or any proportion

of sovereigns and half-sovereigns; by two £5 Bank of England notes; by one such note and the rest gold; and again in making up a sum (to recall an old phrase) he might use silver up to £2 and bronze up to a shilling's worth. The creditor must accept legal tender at the debtor's option. On the other hand, however, the creditor is not bound to give change, or rather is not bound to accept a larger sum with the obligation of returning the difference; still less can the debtor stipulate what change he will take. Under bi-metallism in a modern society the principal application of this provision would be as regards banking operations. It is usual no doubt, at present, for the banker to give his customer the choice of "money," but there is certainly no legal obligation and, even if the Bank of England had suspended cash payments, any other bank could meet its own notes by those of the Bank of England. Similarly, under bi-metallism a bank *might* offer to its customers the choice of gold or silver in payment of its notes or of cheques drawn against it, but the option would legally rest with the bank. A bank note would in England still be a promise to pay so many pounds sterling, but the pound sterling would have an alternative interpretation — meaning so much gold *or* so much silver. If, on the other hand, bank notes were issued in the form of gold and silver certificates, they would, of course, be legally met by the metal named, unless the debtor chose to give the creditor the choice. Thus for some years in the United States the Treasury has met silver certificates with gold at considerable cost and trouble. But under a full and unfettered bi-metallic system no distinction would be made in banking between the two metals — and if a person deposited gold (or accepted a bank note), he might be paid in silver. Similarly, also, as regards the government, it could pay its own debts in either metal and must also accept payment of its taxes in either metal.

It follows, then, that under a perfect bi-metallic system there is no direct means of converting a sum of silver into a

sum of gold (or conversely). Any exchange of the kind must be voluntary — it cannot be forced. The government itself does not undertake even to keep up the "parity" of the metals.

(3) The mention of "parity" leads up to a third condition. Practically bi-metallism involves the proclamation by government of a fixed ratio. This, again, is really involved in the meaning of legal tender. If the debtor has the option, the law must decide what are equivalent sums. A pound sterling will mean a certain weight of standard gold or a certain weight of standard silver fashioned and graven in particular forms. A nugget of gold would not be legal tender, neither would a vein of silver, and still less would the debtor have the option of tendering either at the market values of the day. It is theoretically possible that a government might adopt a system of parallel standards, but the principal practical case of parallel standards is when bi-metallism breaks down.

§ 2. *Bi-metallism in One Country.* Suppose now that any one country, independently of the rest of the commercial world, adopts a system of bi-metallism as defined in the last section. The question arises: Under what conditions (if any) could such a system be maintained? The maintenance of the system in its entirety would involve open mints for both metals, legal tender of both to any amount at the option of the debtor, and stability of the ratio established by law. The one necessary and sufficient condition appears to be that the legal ratio should coincide with the market ratio. It is obvious that so long as this equivalence is maintained it is in general a matter of indifference to the debtor which metal he pays and to the creditor which he receives — as much a matter of indifference as under the present English system whether bank notes or sovereigns are used to fulfil a monetary bargain. If, however, the legal ratio differs from the market ratio even to a small extent, Gresham's Law will come into play. Suppose that a certain weight

of standard gold will exchange in the market for more silver coins than the corresponding weight of silver according to the legal ratio. Obviously every one having gold coins will sell them as bullion, because he can use the legal silver coins obtained to pay his debts and also have a profit left over. Similarly, no one will take gold to the mint, because it can be sold for more "money" (in silver pieces) than it can be minted into (in gold pieces). It might, perhaps, be supposed that once the system had been established the force of habit would keep both metals in circulation at the legal ratio, but as before explained, this would only be the case if the depreciated coins were strictly limited. It is true that at first ordinary people might not observe the depreciation, but it would be quickly detected by dealers in bullion and money-changers. Under a highly developed system of banking the operation of Gresham's Law instead of being checked and lessened would be quickened and intensified. It is remarkable what a slight difference in the value of different forms of money is sufficient to drive the dearer from circulation, that is to say, if there is a sufficiency of the cheaper metal. Thus in England the overvaluation of gold by Sir Isaac Newton[1] of about $1\frac{1}{2}$ per cent sufficed to drive from circulation the full-weight silver and make gold the practical measure of value, whilst, conversely, in France[2] "the ratio adopted by the legislators of the Revolution happened to overvalue silver in some degree, and hence the currency of France came to consist principally of the heavy five-franc pieces."

It is especially through foreign payments (or export) that the dearer metal is withdrawn. Suppose that in a bi-metallic country silver becomes depreciated; that is to say, its price reckoned in gold in a foreign country falls below the mint price in the country in question. The exporter of gold will be able to buy silver below the mint

[1] Jevons, *Money*, p. 98. [2] *Ibid.*, p. 100.

price, and as long as the mints are open sell the silver at the mint price, and the export will continue so long as this differential profit can be obtained.

Seeing, then, that a very slight divergence between the legal and the market rates is sufficient to upset the bi-metallism of any one country, it is important to consider whether this divergence is likely to occur. On the one side it is maintained that the conditions of production of the two metals are liable to great variations, thus affecting the supply, and that the demand is liable to similar variations according to circumstances that are constantly changing. And as a verification of these arguments it is held that governments have either been obliged to change the legal ratio so as to accord with market changes, or else to submit to an alternative standard of the cheaper metal. On the other side, however, it is maintained that if the volume of both metals in the bi-metallic area is relatively large, the compensatory action of the double standard will make the market ratio conform to the legal ratio. And as a verification an appeal is made to the monetary history of this century up to 1873. On this view the magnitude of the bi-metallic system is of the first importance.

§ 3. *Compensatory Action of the Double Standard.* In the argument against the stability of bi-metallism it is assumed that a very slight difference in the demand or supply of either metal would cause the market ratio to diverge from the legal ratio. But this argument is turned round in the theory of the compensatory action. For suppose that owing to a small excess of silver outside the bi-metallic area its market price falls below the mint price (proclaimed in this region). As already shown, so long as the divergence exists gold will be withdrawn from the bi-metallic country to purchase silver in the foreign market. But the increased demand for silver in this market must tend to raise its value relatively to gold, and the increased supply of gold must tend to lower its value

relatively to silver. By this compensatory action the market ratio, it is maintained, tends to be adjusted to the legal ratio, and the readiness and the certainty of the adjustment are proportionate to the volumes of the two metals.

§ 4. *The Stability of the Ratio under International Bi-metallism.* The importance in the theory of the compensatory action just explained of a relatively large area and of relatively large masses of both metals in circulation is best seen by taking the proposal for international bi-metallism. Economists who are quite prepared to admit that bi-metallism adopted independently by any one country would probably break down still maintain that such a system could be maintained by a union of the principal commercial nations of the world. And there is no more contradiction in these positions than there is in saying that a stool would not stand firmly on one leg, but would do so on three or more legs. It may be worth while to show the working of the compensatory action under international bi-metallism by taking a particular case.

Suppose, then, for the sake of definiteness, that instead of the closure of the French and other mints to silver after 1873 all the great commercial nations had agreed to adopt international bi-metallism at the ratio (then considered normal) of $15\frac{1}{2} : 1$. The question is: Would this ratio have remained stable if the bi-metallic conditions relative to equal coinage and legal tender had been observed? For clearness, and to form an adequate idea of the nature of the compensatory action, we may take representative figures. The objection we have to meet is that in any case during the next twenty years following the adoption of the system, silver would have fallen in value relatively to gold and would have driven the gold from circulation. Accordingly, in order to be on the safe side, we will suppose that the silver money of the world at the time was above the usual estimates

and the gold below — so as to put silver initially in an advantageous position for depreciation. Assume, then, that the gold in use for monetary purposes (in coin or bars) was £500 millions, which is less than the usual estimate, and that the silver in use for monetary purposes (excluding token coins) was also £500 millions, which is more than the usual estimate. Suppose, further, that the annual production of gold remained on the average £20 millions whilst silver rose to £60 millions — again the production of gold being less, and that of silver more, than has proved to be the case. In the same spirit of one-sided liberality assume that the net use of gold in the arts and for export to the East was £15 millions annually, leaving only £5 millions for new coins and to replace wear and tear, whilst on the whole only £20 millions of silver would be absorbed by the arts and the East. With these suppositions the new silver yearly available for money would be £40 millions, and the new gold only £5 millions — a statement of the case altogether in favour of a rise in the value of gold and a fall in the value of silver.

Suppose, now, that under the influence of these conditions of demand and supply that (if possible) the market ratio becomes 20 : 1 instead of $15\frac{1}{2}$ : 1 — that is to say, that one ounce of gold exchanges for 20 ounces of silver instead of $15\frac{1}{2}$. Since, then, gold as bullion will exchange for more silver than gold coins will fetch of silver coins at the legal ratio, no one will take gold to the mints to be coined, and, on the contrary, gold coins will be melted down to sell for silver to be converted into coins. And this cessation of new gold coinage and melting down of old coins will go on as long as any divergence exists.

Consider, now, the effects of this divergence of the market from the legal ratio. All this gold or bullion must be sold for silver coins, and the question arises: Where is the silver to come from? The net annual amount available for coinage is £40 millions: £5 millions of this will take the place of the new gold formerly available, and this

will leave £35 millions of silver annually to drive £500 millions of gold from circulation. According to the figures taken all the gold could be driven out in fifteen years, and long before this the system must have broken down if there were no counterbalancing forces.

But so far only half the case has been considered. We must also ask the question: Where is all this gold to go to after it has been driven from circulation? Obviously it must be thrown on the bullion market; that is to say, to the former annual supply of £15 millions there must be suddenly added £40 millions displaced by silver as well as the £5 millions formerly coined. It is, however, perfectly clear that an increase of threefold in the annual supply of gold as a commodity could only be got rid of by a very great fall in its value. And in fact long before even one year's extra supply could be got rid of for ornaments and the like (the flow for coinage having been reversed), the old ratio would have been restored.

This reasoning is strengthened if we look also at silver. There would be in the case supposed an exceptional demand for silver to replace this gold as coinage, and thus from the point of view of demand the value of silver would tend to rise. And further, so long as silver was depreciated and gold appreciated (with reference to the legal ratio), a check would so far be placed on the production of silver and a stimulus given to that of gold.

For the sake of clearness and in order that the case for the depreciation of silver might be presented as forcibly as possible, the lines in this illustration have been made thick and black after the device of the mathematical economist. In reality, however, every small addition of gold to the bullion market would tend to lower its value, and every abstraction of silver therefrom would tend to raise its value, and thus instead of saying that the legal ratio would be restored after any momentary disturbance, we should rather say that under the circumstances it would not be disturbed.

The real difference would simply be that if one metal were to increase very much, the aggregate money of the bi-metallic union would gradually show a larger proportion of that metal. If the increase happened to be in silver, any inconvenience could be met by issuing notes, and if in gold, of issuing tokens of silver.

§ 5. *The Historical Argument.* The history of the ratio of gold to silver from 1500 to 1873 — that is to say nearly four centuries — raises the presumption that the relative stability and the gradual change without violent oscillation was mainly due to the fact that practically any amount of either metal could be used as money at a ratio varying between narrow limits over any period usual in business transactions. The stability of the ratio, especially in the seventy years preceding 1873, is most instructive. From 1801–1810, for example, the production was in value about 3 of silver to 1 of gold, whilst from 1856–1860 the proportions had changed to 3 of gold to 1 of silver, and yet the ratio remained undisturbed. It survived also the great Napoleonic wars and the suspension of cash payments of the Bank of England, as well as the Civil War in America, and the enormous issues of greenbacks.

After 1873, however, we observe an unprecedented change in the ratio, which rose in a very few years from $15\frac{1}{2} : 1$ to $31 : 1$, the change being also marked by violent and rapid oscillations. The only *vera causa* of sufficient magnitude to account for this great and fluctuating depreciation of silver appears to be the total or partial closure of the mints of the world to the coinage of silver as standard money.

§ 6. *Difficulties in the Adoption of International Bi-metallism under Present Conditions.* There can be little doubt in the light of the argument just presented, that but for the change in monetary policy affecting silver, the depreciation of that metal would at any rate have been far less than it has been, and if definitely recognised bi-metallism

had been adopted by the principal commercial nations, the old ratio would have been undisturbed. The advantages of international bi-metallism, if effectively maintained, will be noticed in the next section, but in the first place it seems desirable to consider the objections which may be raised to the adoption of such a system under present conditions. By present conditions I refer to accomplished facts such as the following: (1) For the past four years the ratio of silver to gold has oscillated about 31 : 1 in place of the old parity of $15\frac{1}{2} : 1$. (2) The anti-silver policy has been carried further by the closure of the Indian mints, and the cessation of purchases of silver by the United States. (3) Nearly a quarter of a century has elapsed since this new policy began, and with it the depreciation of silver.

Now it is one thing to maintain that, if the *status quo* had been preserved, and still more if, in 1873, international bi-metallism had been adopted, the world would have been saved from great financial and monetary disturbances, but it is quite another thing to suppose that the evil can be undone and the future guaranteed by the simple expedient of doing now what might have been done before these disturbances occurred. In modern phraseology, if a position of unstable equilibrium has once been disturbed, it may never again be restored, or, in the language of our forefathers, it may be a case of Humpty Dumpty. In the economic, as in the political world, as soon as any great disturbance occurs, the processes of readjustment begin. The principle of prescription rests upon the recognition of this fact, and, as Burke says, "If prescription be once shaken no species of property is secure." In some countries, notably in France, prescription applies even to crimes, and if the demonetisation of silver had been a crime and not a blunder, it may still be said that honest men have long since acted upon the consequent depreciation. Throughout the inquiry into general movements of prices, it has been taken as funda-

mental that relative prices tend to be adjusted to relative values, or, in other words, that any exceptional profit or loss due to a change in the measure of values tends to disappear. The period of complete readjustment will vary in different cases, but nineteen years is a long term even for an improving lease. A sudden rise in silver to the old ratio would produce an even greater disturbance in prices than the former fall, which was comparatively gradual. To attempt to restore silver to the old ratio during the next quarter of a century, by a succession of tentative processes, the converse of those accidentally adopted during the fall, would be to start a new series of disturbances of an opposite kind.

On the other hand, however, the adoption of any other ratio in an international agreement would be to acknowledge definitely that a large mass of standard silver money was depreciated, and before the agreement could be carried out, this depreciation must be met. Five-franc pieces circulate at present at their nominal value only because the coinage is suspended; and coinage at the present market ratio would practically involve the recall of the old coins at a loss of half their value.[1] Now it is safe to assert that in matters of money the governments of the world would pay more attention to the direct and palpable loss involved in a recoinage of this kind, than to the indirect and hidden effects of general monetary disturbances.

Apart from the difficulties involved in the selection and adoption of a ratio by the great commercial powers there is a further difficulty, to which, in general, not sufficient weight seems to be attached; namely, the suspicion with which silver is viewed by banks and governments. It is vain to point out that there has been no depreciation of silver relatively to commodities when the cause of all the trouble has been its depreciation relatively

[1] A part, however, might be retained as tokens.

to gold. Now if bi-metallism is to work effectively, banks and governments must regard the two metals with equal indifference. The theoretical argument on the stability of the ratio involves this as a fundamental assumption. If the banks of the various countries concerned were to look on silver with disfavour, and to try to get rid of it as quickly as possible, a premium on gold would arise. Nor could it be supposed that the various governments would come to the rescue, as in the isolated and peculiar case of the United States.

There is a further point to be considered as a practical qualification of the pure theory; namely, that instead of the cheaper metal driving the dearer from circulation, the former might simply send the latter to a premium, both remaining in circulation. In this event legal obligations already incurred would be met in the depreciated metal, but future bargains would be made on a gold basis. There would then arise all the inconveniences of depreciated inconvertible paper, and it has never been contemplated that the international agreement should obtain its sanction in penalties.

Finally, it may be said that if there is any probability or even suspicion of uncertainty as regards the legal tender, the primary object of a standard of values will be defeated; that is to say, certainty in the interpretation of contracts. It may be that the certainty aroused by a definite amount of gold does not guarantee any corresponding certainty of purchasing power, but it gives, as has already been shown, the kind of certainty that is generally aimed at in monetary bargains. The agreement is made in terms of money, and not in terms of purchasing power. Comparative stability of value in the standard is no doubt an object to keep in view, and in extreme cases of fluctuating depreciation it is the want of stability of value that constitutes the principal evil. The simplicity of monetary transactions, however, altogether outweighs the theoretical advantages of a tabular

standard. Adam Smith asserted of taxes: "A very considerable degree of inequality, it appears, I believe, from the experience of all nations, is not near so great an evil as a very small degree of uncertainty." And a similar comparison may be made with regard to the relative evils of inequality and uncertainty in currency. Depreciation or appreciation of the standard relatively to commodities is equivalent in its effects to the imposition of an unequal tax, the proceeds of which are transferred to a favoured class. In the case of depreciation the creditor is mulcted for the benefit of the debtor, and in the case of appreciation the process is reversed. Which species of inequality is the worst may be a matter for argument, but neither is so bad as uncertainty in the standard itself. The disturbances which arose in different periods from variations in the value of silver (when silver was the principal standard) were as dust in the balance, compared with the evils of debased and clipped coinage.

The importance of these considerations is shown by examining the conditions which must be observed in any international agreement.

§ 7. *Conditions of International Agreement on Bi-metallism.* An agreement on the part of the principal commercial nations to adopt bi-metallism would in many respects be much more simple than is generally supposed. All that is required is simultaneous action on the same lines. All the nations concerned must agree to adopt the same ratio for coinage, to keep open mints for both metals, and to make both equally legal tender. Apart from these general conditions the coinages of the different nations will be as independent as at present. Every nation will be responsible for its own coinage and its own coinage alone. There will be no necessity for any change in the standard unit; the United States can still measure by dollars, France by francs, and England by sovereigns. The only difference will be that England, for example, must coin silver of full value at the ratio agreed on. Similarly, the national

banking systems would be left untouched. There would be no compulsion as regards the relative amounts of the two metals to be kept in reserve, and in meeting their obligations the banks, like other debtors, would have the choice of gold or silver. But neither governments nor banks would be bound to use any effort or go to any expense to keep up the parity. If, then, through fear of a possible depreciation of silver, although that fear might be utterly unreasonable provided bi-metallism were adopted *bona fide* in the same spirit as the London merchants supported the Bank of England in the restriction, the national banks were to try to accumulate gold and get rid of silver, this very fear of depreciation would be a sufficient cause of depreciation. The Bank of England, for example, holds the ultimate metallic reserve of this country. This reserve can only be extracted by the creditors of the bank through the presentation of notes or cheques. The Bank being a debtor can, if it chooses, under the new system, pay in silver. But suppose that the creditor is in the last resort a government which requires gold for its war chests or another national bank that has or thinks it has too much silver. In this case the Bank of England would be in a position to charge a premium on gold. And instead of gold pouring in to gain the premium, the premium might be allowed for just as it is when inconvertible paper is depreciated. Thus the simplicity of an international bi-metallic arrangement consequent on the absence of penal clauses and the reliance on options may be under certain circumstances a source of weakness.

Apart from the difficulties already indicated there is the foundation on which they all rest, — the *vis inertiæ* of popular prejudice. The mere cry of tampering with the currency may be as effective against bi-metallism as the cry of a cheap loaf against a registration duty on corn.

§ 8. *Advantages of International Bi-metallism.* And yet the advantages of international bi-metallism are obvious and considerable. Silver has proved itself from the

point of view of stability of value a better standard than gold. "There can be no doubt that on the whole," wrote Ricardo[1] in 1816, "silver is preferable to gold as a standard and should be permanently adopted for that purpose." A survey of the history of prices since this observation was made abundantly confirms the greater stability of silver as a measure of value.[2] If, however, gold were linked to silver by a fixed ratio, it would obviously share in this stability. And we may go further and say that the two metals together would possess greater stability of value than silver alone. The increasing demands caused by the growth of trade and population in new countries could be met by the annual supplies of both metals. And it must be remembered that with the increase in wealth there is a greater demand for the use of the precious metals in the arts, and further that the larger the mass in use, so much more is required annually to replace the wear and tear and accidental losses. Unfortunately, however, for reasons already given, the greater part of people pay as little attention to general movements in prices as they do to slow geological changes in the crust of the earth. Just as in the one case it requires an earthquake or great tidal wave to attract their attention, so in the other nothing short of a commercial crisis or national insolvency will open their eyes.

There are, however, advantages in international bi-metallism which are more palpable and obvious if not more real than stability of general prices. Capital would flow more readily from the West to the East, and great encouragement would be given to trade. For one who sees the effect of a fall in general prices there are ten thousand who see the effect of a fall in the rate of interest. And with both metals in use indifferently as standard money the great banks of the world could much more easily ren-

[1] McCulloch's edition, p. 403.

[2] But *cf.* "Essay on Silver Prices in India," by F. R. Atkinson, *Statistical Journal*, March, 1897.

der one another assistance in case of need. We should not find the Bank rate in England 2 per cent and in India 8 or 10 per cent for months together. Nor should we find the metallic value of unlimited legal tenders below the nominal value, as in France and other countries with the *étalon boiteux*, and to a less extent in India "with a gold standard without gold."

It is worth recalling, in view of the alleged practical impossibility of international bi-metallism, the memorable declaration of Adam Smith, on Free Trade. "To expect, indeed, that the freedom of trade should ever be entirely restored in Great Britain, is as absurd as to expect that an Oceana or Utopia should ever be established in it. Not only the prejudices of the public, but what is much more unconquerable, the private interests of many individuals, irresistibly oppose it."

Just as protection met its potato famine, the gold standard may meet its famine, and possibly the financiers of England may prefer the adoption of international bi-metallism to the adoption of a silver standard by the United States.

# CHAPTER XIX.

## BANKS OF ISSUE.

§ 1. *General View of the Functions of Banks.* In these days we are so familiar with banking that we are apt to regard its principles and methods as natural and obvious. It is only in times of crisis and panic that we can realise, and then only partially, that banking is the highly artificial and complex product of a long series of experiments. The best way to understand the real difficulties involved is to trace the gradual development historically of the various functions.[1] Broadly speaking, it will be found that these functions may be divided into two groups.

In the first place, the principal function may be to provide a convenient form of currency by the issue of notes. Bank notes, as will be shown presently, may in several respects be a more convenient form of currency than metallic money.

Secondly, the principal function of a bank may be to receive "money" on the one side and lend it on the other. The money received consists partly of the original capital of the bank (in the form of contributions by shareholders), and partly of deposits. At first these deposits are actual coin, but later on the deposits and the lending consist mainly of forms of credit.

The distinction between the two sets of functions is perhaps best illustrated by reference to the present constitution of the Bank of England. In this bank the Issue department is quite distinct from the Banking department

[1] Bagehot's *Lombard Street*, Ch. III.

in the second and modern sense of banking. The issue of notes is strictly regulated by statute (the Bank Charter Act of 1844), whilst, on the other hand, the management of the deposits and of discounts and the determination of the reserve are left to the discretion of the directors.

It may also be observed that at present in every country, many banks carry on a large and profitable business without the right of issue; *e.g.*, the great Joint Stock Banks in England, and the State Banks in the United States.

At the same time, however, we find that historically, there is often a very close connection between the two functions. This is perhaps best shown in the history of Scottish banking.[1] For a long period the success of Scottish banking was bound up with the right of issue of £1 notes, and even at the present day this right of issue is considered to give such an advantage to the established banks as to render the establishment of new banks, which would have no such right, practically impossible.

One reason why France is under-banked as compared with Scotland, especially as regards branches in remote districts, is to be found in the monopoly of issue given to the Bank of France, which has checked the development of independent banks of discount.[2]

§ 2. *Origin and Development of Bank Notes.* Bank notes may be described, as by Jevons, as a species of representative money, and their chief uses may be connected both historically and theoretically with the functions of money.

One of the earliest uses of bank notes was to provide a better and more convenient medium of exchange than the actual circulating medium. Coins became clipped and worn and of uncertain value, but the bank notes always represented a certain definite quantity of the

[1] See Appendix to this chapter.

[2] Cf. Dunbar, *op. cit.*, Ch. VIII.

precious metals. Under these circumstances the value of the notes possessed greater stability than that of the coins. The classical example is the Bank of Amsterdam,[1] but reference may also be made to the Scottish banks. Bank notes are also more convenient for remittance, and especially, when issued against silver, are more convenient to carry.

The general convenience of bank notes as currency, compared even with gold, is well illustrated by the case of Scotland. People can if they like get sovereigns, but in most instances they prefer notes. There are cases on record in which bank notes have stood at a premium above the metal which they are supposed to represent, and at present the rouble notes in Russia[2] are worth a little more than the silver against which they are issued.

So far, then, bank notes in origin and in use may be looked on as a convenient form of currency exactly as token coins, but they have also another origin and another use.

Merchants and private people found it dangerous to keep large stocks of metallic money, and accordingly they wished to put it in a place of safety. In England they at one time used the Mint, but the King, Charles I. (1640), "borrowed" the money, some £200,000; and although it was soon repaid, the merchants preferred again to keep their money themselves. But during the Civil War their apprentices "borrowed" it, and thus an encouragement was given to the practice of depositing money with the goldsmiths, who gave receipts or notes in return. At first the goldsmiths are said (as in the Bank of Amsterdam) to have kept the actual money (like jewels), but they soon discovered they could lend a great part, and yet meet all the demands. In this way they came to lend at interest, and in order to get more money they paid interest on deposits. If the borrowers accepted notes, this

[1] Cf. Adam Smith, Bk. IV., Ch. III., and Dunbar, Ch. VII., p. 82.

[2] Cf. *The Report of the Committee on Indian Currency.*

was equivalent to lending credit. The goldsmiths lent largely to the King, and the first "run" on these banks was in 1667, when the Dutch sailed up the Thames. The second "run" took place in 1672, when Charles II. shut up the Exchequer, and would not pay interest or principal (over one and a quarter million pounds). Such distress ensued that the King agreed to pay interest at 6 per cent, and about forty years later the principal was recognised as the origin of the National Debt.[1] We see in the case of the goldsmiths that bank notes at first represented deposits, and as a consequence such notes often bore interest.

The Bank of England was founded in 1694, and at first its notes also bore interest, and were payable to order and not to bearer. No notes of less than £ 20 were issued up to 1759, and then the minimum was only reduced to £ 10. Thus, in the case of the Bank of England, unlike that of Amsterdam, the issue of notes was rather accidental than essential. The primary object was to advance the capital of the shareholders to the government on the analogy of the Finance Banks of Italy, especially Genoa. In Scotland the issue of notes was from the first an essential part of the banking, and for a long time the chief source of profit, though now as regards profit (directly) it is of minor importance.

There can be no question, when we make a survey of the great commercial countries, that under present conditions the principal function of bank notes is to form a convenient part of the currency. Their use in banking proper (in the modern sense of lending credit) is relatively small, and only now appears to be of importance at exceptional times of crisis, as shown in England by the suspension of the Bank Charter Act of 1844.

Accordingly, in the next section, I shall consider what regulations, if any, under present economic conditions should be laid down by government from the point of view of convenience of currency.

[1] Gilbart's *History of Banking*, Vol. I., p. 280.

§ 3. *Should Absolute Freedom of Issue be allowed?* When we speak of the absolute freedom of issue, it is, of course, implied that the general legal conditions affecting contracts are observed, and apart from this, certain special conditions may be laid down consistently with practical freedom of issue. The point is: Should the issue of notes be left to the discretion of bankers, as are their dealings in other forms of credit in deposit banking and discounts? Should bankers be allowed to issue notes to any extent, of any denomination and backed by any reserve they deem adequate, or, on the other hand, ought the government either itself to undertake the control and management of notes or, if it delegates the duty to others, lay down stringent regulations?

There are several general arguments in support of the management of note issues by the government, or in the case of delegation of authority, in support of the imposition of stringent regulations.

As regards other forms of currency, the regulation of government seems justified both on historical and theoretical grounds. Both as regards standard metallic money and token coins the *jus monetandi* has long been regarded as one of the elementary rights and duties of the state. The abuses of private tokens are well known, as also the abuses of culling and garbling or otherwise treating "freely" the standard coins.[1] Thus if bank notes are regarded purely as currency, the presumption seems to be in favour of governmental control. Again, the issue of convertible notes (and with these alone we are now concerned) can be made a pure matter of routine as in the Issue department of the Bank of England. So long as the notes are absolutely secured and convertible without trouble or delay, the proportion of notes to metal in the circulation depends simply upon the convenience of the users. Nothing is left to the judgment of the government, and, in fact, there is far less management required

[1] Cf. *Money and Monetary Problems*, fourth edition, p. 284.

than in the case of token coins. The State also as contrasted with a number of independent banks can secure uniformity, and thus make the notes a more convenient medium of exchange. The notes of English private banks have at present a purely local circulation, and Scottish notes are not current in England. The notes of all the Scottish banks, however, throughout Scotland itself seem to be equally acceptable, although they differ in appearance. The government of a great commercial country in the last resort can offer the greatest security, both immediate and ultimate for convertibility, or can best prevent any possibility of depreciation. It offers greater immediate security because it need not look to make a profit, and can keep a larger reserve; it performs a public function analogous to the gratuitous minting of coins and the replacement of wear and tear.

The ultimate security is also greater because it rests on the credit of the whole nation. In most cases the successful issue of bank notes involves a partial monopoly actual if not nominal, and in general monopolies require State control. As a rule, also, the issue of notes is a source of profit, and the government seems entitled to it for the benefit of the whole nation. Finally, it may be said that the State monopoly of notes does not check banking proper after a certain degree of development has been attained, as shown by the rise in England of banks without notes and the displacement of banks with the right of issue. The surrender of the right of issue by various country banks also indicates the comparatively minor importance of notes compared with other forms of credit.

Thus, on balance, the general conclusion seems to be that the State should either control the issues itself through a national bank, or if it delegates the functions to other banks, should lay down strict regulations, especially as regards security for convertibility. As a matter of fact, every country has found by experience that unrestricted freedom of issue is liable to great abuses. The principal

argument in favour of freedom of issue is founded on the encouragement given to banking proper, especially in its early stages of development.[1]

§ 4. *On the Minimum Denomination of Bank Notes.* Whether government actually manages the note issues or delegates its authority, it has been found by experience that the minimum denomination should not be too low. A token coin is preferable to a small bank note, and the *raison d'être* of bank notes (considered as forms of currency) is to save the inconvenience of handling large sums. The objections to small notes are the greater liability to forgery, the greater danger of panic, as they are held mainly by the poorer people, and the greater expense if the notes are kept in an efficient state. As an illustration of the last point it may be mentioned that under present conditions the issue of Scottish £1 notes would be unprofitable if, as in the case of the Bank of England, the notes were always renewed on being returned to the bank of issue. The evils of very small notes — *e.g.*, to the nominal value of fivepence — have been exemplified repeatedly in the case of inconvertible issues. Here, however, the principal evil is the danger of over-issue, and in the case of convertible notes it may be contended that over-issue is impossible.

§ 5. *Is the Over-issue of Convertible Notes Possible?* The answer to the question whether convertible notes can be issued in excess brings out the distinction between the two opposing principles of note issues; namely, those known historically as the Currency principle, and the Banking principle.

The supporters of the Currency principle either maintain the extreme view that the notes ought simply to take the place of so much actual coin or bullion, or else, if they do not go to this extreme, that the issues not representing or taking the place of bullion ought to be strictly limited

[1] See Appendix on Scottish Banks.

and backed by special reserves. Otherwise they contend there may be over-issue. Now the term "over-issue" is obviously relative. In the first place, it may mean relatively to the reserve, or that a sufficient reserve will not be kept. As regards ultimate redemption, this danger may be easily met in various ways, *e.g.*, by compelling the bank to keep government securities yielding interest, by the unlimited liability of the shareholder as regards notes, or by the preferential ranking of note-holders. But ultimate convertibility is not sufficient.

Notes as currency ought always to be payable on demand, otherwise their convertibility is suspended, and for the time they may become depreciated. Thus the point of the objection is that not enough gold will be kept for redemption under all circumstances, unless the State intervenes to regulate the real reserve or to limit the issues. As thus stated the objection appears to be valid, because the keen competition of banks leads them to reduce their real reserve to a minimum, and the reserve against notes is only needed in exceptional times. The immediate absolute convertibility of notes is so important that the small expense of keeping a reserve of gold without interest is, relatively to the interests of the nation, of very slight moment. An example of what may be styled an excessive reserve against notes is furnished by the Bank Charter Act of 1844. Even in 1844 the average of notes in circulation for some years rarely sank below £16 million. Accordingly the issue of notes against securities was limited — to be on the safe side — to £14 million,[1] and for every note issued beyond this sum gold must be kept in the Issue department.

There can be no doubt that the gold held by the Bank in the Issue department, considered as a reserve against the notes, is absurdly large. For the week ending March 31, 1897, for example, against £53,803,340 notes there

[1] The amount has risen since, gradually, to nearly £17 million, through the falling in of the issues of country banks.

were held besides £ 16,800,000 of government debt and other securities, £ 37,003,340 of gold. It must be remembered, however, that although this gold cannot be used for ordinary banking purposes, *e.g.*, to meet a foreign drain — unless the Bank can itself present notes for redemption, the suspension of the Act in case of need would enable the Bank to issue more notes, and so far avail itself of the gold. It seems to be doubtful, also, whether the gold is really ear-marked for the benefit of the note-holders, and whether in case of the failure of the Bank, the note-holders would have a preferential claim. In any case, however, the issue of the notes is effectively limited by the regulations, and for any conceivable cases the convertibility is absolute. The saving of interest to the nation on £ 30 million of gold would not be worth the sacrifice of an important form of national insurance.

But another meaning has been given to the term "over-issue." Although the reserve may be adequate and convertibility secured, it is contended that notes, even if nominally and actually convertible on demand, may be issued to such an extent as to cause an inflation of prices. This was the idea which was most before the minds of the framers of the Act of 1844. They imagined that too many notes were issued and that this undue increase in the "quantity of money" raised prices to an inflation level and eventually caused a commercial crisis. Even at the time this view, if not altogether false, was certainly exaggerated, and it was shown by Tooke in the *History of Prices* that the apparently excessive issues of notes followed, instead of preceding, commercial crises, more notes being required owing to the failure of other forms of credit. At the present time, with the cheque system fully developed and with deposits of credit lent by the banks, bank notes have a comparatively small effect in raising or keeping up prices. At the same time, however, it must be admitted that the argument against the possibility of over-issue in this form, that is to say as

connected with an inflation of prices, has been pushed to an extreme by some writers. They maintain that if excessive issues take place, if the notes are convertible, they will at once be returned to the bank of issue. This is true in an extreme case, but it is also possible that the notes will not be immediately returned; they may continue to circulate, and cause or support an inflation by providing means for retail transactions and wages. Thus in this way general prices may rise until by the check to exports and stimulus to imports a foreign drain of gold may arise and eventually the convertibility of the notes may be impaired.

It is sometimes argued that excessive issues of convertible notes cannot be got into circulation at all because the quantity of currency depends on prices, and not the converse. It is no doubt true that, as already shown, the proportion of convertible notes to metallic money depends upon the convenience of people, and convertible notes cannot, like inconvertible, be forced into circulation. But if no restrictions are imposed on bankers, they may issue notes to such an extent that on any shock to confidence the reserves may be insufficient, and indirectly the notes may defer and in the end intensify a commercial or financial crisis.

The banking principle simply regards notes as a form of credit in no way to be distinguished from other forms of credit and therefore requiring no special regulations. But on the whole the better opinion seems to be that both on theoretical and historical grounds notes must be considered as currency and held to require special regulations.

§ 6. *Methods of regulating the Issues of Bank Notes.*[1] It may be useful to notice some of the principal methods that are now adopted in the great commercial countries as regards the issues of notes. They may be divided into two groups according as they are intended to limit the issues

[1] Cf. Jevons, *Money*, Ch. XVIII.

or to strengthen the reserve. In some cases, however, both ends are kept in view.

In the case of the Bank of France as at present constituted the interference of the government is, with one exception, indirect only. The amount of notes that may be issued was formerly without legislative limit, but during the suspension of convertibility, 1870–1878, caused by the Franco-German War certain limits were imposed, and on the resumption of specie payments the limitation was retained, and in 1884 was fixed at 3,500,000,000 francs. No distinction, however, is made between notes and other forms of indebtedness. Nor again is the Bank compelled to keep a certain metallic reserve, whether a minimum or an amount proportionate to the issues. But although there is this apparent freedom, the governor and the two deputy governors are appointed in the public interest by the State — the former for life. And as a matter of fact the Bank of France in the general interests of the community keeps a very large metallic reserve, sometimes above £ 100,000,000 sterling. Again, the Bank of France only is allowed to issue notes, and *per contra* it is bound to establish a branch in each of the Departments whether the business happens to be profitable or not.[1] The lowest note issued is for 50 francs.

The method adopted in England has already been explained, so far as the Bank of England is concerned. As regards other banks, only those which had the right of issue in 1844 were allowed to issue notes, and the amount was fixed in each case at the average of the circulation during the twelve weeks preceding April 27, 1844. It was also provided that if any bank surrendered the right of issue, two-thirds of the amount might be added to the notes of the Bank of England not issued against gold. No particular regulations were imposed on the amount of reserve that must be kept against the notes, but the limit

[1] Cf. Dunbar, Ch. VIII.; Dr. Gairdner, *National Gold Reserves*, Glasgow, 1890.

of issues could not be exceeded, even if the banks held gold against every note. The minimum English bank note is for £5.

By the Act of 1845, the issues of the Scottish banks were determined on different principles. Although the issues were restricted, an element of elasticity was introduced. As in England, only those banks which at the time issued notes, were to have the right of issue, and, as in England, the *authorised* amounts were determined by the previous averages. But the privilege accorded to the Bank of England, and denied to the English country banks, namely, the right to issue against gold to an unlimited extent, was accorded also to the Scottish banks, with a point of difference in their favour. They were allowed to issue notes in excess of the authorised amounts against gold, the gold to be held at the principal office, and the amount to be determined by the average *monthly* circulation. This privilege has assisted largely in the development of the country branches of the banks.[1] The minimum note is £1.

The system adopted in Germany since the establishment of the Imperial Bank in 1875 is in the main an adaptation of the English system as laid down in the Bank Charter Act of 1844. The exclusive right of issue was given to the banks that at the time exercised the right, and to the new Imperial bank. No limit was fixed to the aggregate issues, but the aggregate that could be issued without being covered by cash was fixed at 385,000,000 marks. This total was apportioned between the different banks, partly according to their previous circulation. For all notes issued beyond this amount "cash" must be held — "cash" being held to mean German coin, gold bullion, imperial treasury notes, and the notes of other banks.

An element of elasticity is, however, introduced at this point, apparently suggested by the suspension of the Bank

[1] See Appendix to this chapter.

Charter Act in times of crisis. Any bank can increase its issues beyond the limit of authorised issue without cash, on paying a tax of 5 per cent per annum. It is also required that the cash held exclusive of the notes of other banks shall, in any case, be equal to at least one-third of the total circulation, and the other two-thirds shall be protected by bills with not more than three months to run. The minimum note allowed is for 100 marks, *i.e.* about £ 5.[1]

In the United States there are various issues of bank notes, and attention may first be directed to the bank notes proper of the national banks. The peculiarity in this system is that the notes are issued principally against a documentary reserve. Any national bank which issues notes must deposit with the Treasury at Washington registered bonds of the United States. The bank, however, retains the property in the bonds and collects the interest. In exchange for the bonds the Comptroller of the Currency gives over notes to the amount of 90 per cent of the market value, but not exceeding 90 per cent of the par value. The notes when received are in blank, but when filled in by the banks become promissory notes. As such they must be payable on demand when presented at the bank, and they are also to be received by other banks and by the government, although not legal tender between individuals. By these regulations the notes of the banks are uniform and are current throughout the whole country. Beyond the liability of the issuing bank there is by the law of 1874 a further liability on the part of the United States government. The government is bound to pay on demand all notes presented even although they exceed the 5 per cent reserve of the circulation which every bank must maintain in the Treasury. From 1881–1890 there was a continuous decline in the issues of notes, partly due to the small return afforded by the

[1] Dunbar, Ch. XI.

United States bonds, with the payment of the national debt and the rise in national credit.

Bank notes of less than $5 were not permitted after 1879 on the resumption of specie payments.

Besides the bank notes proper of the national banks, there are in the first place the so-called "greenbacks." These notes were first issued during the Civil War (1862), and being inconvertible became depreciated. At the close of the war a portion was withdrawn, but by the Act of 1878 the Treasury was forbidden to reduce the amount then in circulation, $346,681,016. The greenbacks were issued of so low a denomination as $1 and $2 until, in 1885, issues of less than $5 were stopped. By an Act of 1882, a specific reserve of $100,000,000 is sometimes assumed to be set aside for the payment of the greenbacks, and all Treasury statements since its enactment are supposed to place this amount of gold as a separate fund among the assets. But practically this gold (and lately it has sometimes fallen below the official minimum) is also a reserve against the silver certificates and also against the silver in circulation.

One or two points regarding the silver certificates are of interest as bearing on the subject-matter of the present section. By the Bland Act of 1878 a definite amount of silver was to be issued every month, not more than four nor less than two million dollars' *worth* of silver. Thus as silver fell, the number of dollers coined increased. But by the same Act silver certificates were issued against the deposit of silver dollars, and they were limited to denominations of $10 and upwards. As a consequence, a large part of the dollars coined were never circulated, even in the representative form of certificates. In 1886, however, certificates were authorised of $1, $2, and $3, and being preferred to silver dollars went rapidly into circulation, especially as "greenbacks" of less than $5 had been suppressed in the previous year.

By the Sherman Act of 1890, notes (as low as $1) were

issued for the silver purchased. As silver fell, the fixed quantity of 4,500,000 ounces of silver was purchased with a less number of dollars, and consequently so far, a less number of Treasury notes were issued. But at the same time, owing to a reduction of revenue principally consequent on changes in the tariff, the Treasury could not hoard silver currency, and consequently an enormous increase took place in the issues of the new Treasury notes. The drain upon gold became so severe, and the currency of notes and silver was so obviously threatened with depreciation, that the Act was repealed in 1893.

The United States is thus, as regards its bank notes (or rather paper currency), in an unenviable position. The notes of the national banks are amply secured, but the documentary reserve system is open to objection.

What is required is immediate, and not ultimate, convertibility, and the immediate convertibility depends upon the Treasury. But the Treasury is also bound by practice and expectation, if not by law, to give equal security for the immediate convertibility into gold, not only of the greenbacks, but of all the silver and silver certificates in circulation. No one doubts the ability of the government —if it chooses to act in time—to meet all these liabilities. It may increase its revenues by taxation, or borrow gold when the hundred million dollar limit is threatened. But an increase of taxation is indirectly as well as directly burdensome to a country, and loans of gold only give temporary relief, and increase the permanent indebtedness. The present system, however, is most injurious through its effects on credit and confidence. Although the opinion has been approved in this chapter that the regulation of notes is a function that properly belongs to government, no one ever contended that government should manage the issues beyond laying down general principles which should form the basis of a routine system.[1]

[1] *Cf.* article by C. F. Dunbar on "The Safety of the Legal Tender Paper," *Quarterly Journal of Economics*, April, 1897.

# APPENDIX[1] TO CHAPTER XIX.

## History of Scottish Banking.

"Here stands Theory, a scroll in her hand, full of deep and mysterious combinations of figures, the least failure in which may alter the result entirely, and which you must take on trust; for who is expected to go through and check them? There lies before you a Practical System, successful for upwards of a century. The one allures you with promises, the other appeals to the miracles wrought on your behalf. The one shows you provinces the wealth of which has been reaped under her management; the other, a problem which has never been practically solved. Here you have a pamphlet, there a fishing town; here the long-continued prosperity of a nation, and there the opinion of a professor of economics that in such circumstances she ought not by true principles to have prospered at all." This anticipation of the historical method was made in 1826 by Sir Walter Scott, who, under the guise of Sir Malachi Malagrowther, took the lead in preserving for Scotland one of the most essential parts of her banking system, namely, the One Pound Note.[2]

In the space to which this paper is necessarily limited

[1] This paper, in its original form, was first published in the *Journal of Political Economy*, Chicago, September, 1893.

[2] I have to express my special indebtedness in this paper to the work by Mr. William Graham, entitled: *The One Pound Note in the Rise and Progress of Banking in Scotland, and its Adaptability to England*, Edinburgh, 1886. This is one of the best historical studies with which I am acquainted.

it is, of course, impossible to trace historically the growth of Scottish banking through all its changes and vicissitudes; at the same time, however, the opinion must be firmly stated that Scottish banking as it is cannot be appreciated without considering it as it was; it is, more than any other existing system, the result of continuous development, and owes less than any to the direct interference of the legislature. Accordingly, I shall try to give in outline its leading principles from the historical standpoint, adjusting the emphasis in proportion to their importance at the present time.

The Bank of Scotland was founded in 1695, with a joint stock of £1,200,000 Scots, the pound Scots being, however, one-twelfth of the pound sterling. The object of the adventurers who provided the capital was, of course, profit, and in accordance with the ideas of the times, they considered that profit was only possible through monopoly, at any rate in the first place. The desired monopoly was effected by prohibiting any other persons to set up a "company of bank into this kingdom" for a period of twenty-one years, and during the same time for its further encouragement no public burdens were to be imposed upon its capital. The first point of importance to notice is that on the termination of the period (1716) the monopoly was not renewed; and that, as a matter of fact, the Royal Bank, the next in order, did not begin business till 1727. Thus, especially in contrast with England, Scotland furnishes an example from the very outset of the system of freedom. The system was, of course, subject to the general principles of Scots law, but, speaking broadly, it did not receive any peculiar impress from the legislature until it was so strong that the impress was either only the confirmation of the best custom, or was superficial and formal. It is as an example of free trade in banking that the Scottish system is of peculiar interest to the student of theoretical economics.

The next point to consider is the functions performed

by the old bank, as it was long styled, in the interests of the public. Every one knows the famous description by Macaulay of the state of the English coinage in 1695, "when it could hardly be said that the country possessed any (standard) measure of the value of commodities, and when it was a mere chance whether what was called a shilling was really tenpence, sixpence or a groat." It is perhaps not so generally known that at the same time the monetary condition of Scotland was worse. Not only was the coinage bad, but the coins were very scarce. There was a real deficiency of the circulating medium, so great, indeed, as to place a restriction on the natural development of trade and production. There was very little gold, so that in large payments the bulk and weight of silver were highly inconvenient. In these circumstances, the issue of bank notes, if on anything approaching a sound basis, would obviously be a great national benefit. Paradoxical as it may seem at first sight, bank notes, limited in number or adequately secured, may under certain conditions be a better standard of value and medium of exchange than actual coins.[1]

Now, in the original charter of the Bank of Scotland it was provided that summary execution should proceed upon bills or "ticquets upon or granted by" the bank. Thus, by law, if the notes were not paid on demand, payment could be enforced by summary diligence. As a consequence, the issues were in no sense forced, and the notes soon became very popular. We learn from John Law,[2] who, better than any other man of his time, understood the uses and abuses of early banking, that within ten years

[1] A modern instance may be given from the *Report of the Indian Currency Committee*. "It is an interesting fact that the paper rouble, being in form a promise to pay silver, is now, owing to the fall in silver, exchanged for a higher value in gold than the silver which it promises to pay," p. 27.

[2] For a defence of John Law's system of banking, so long as he carried out only his own ideas, see an essay by the present writer in *Money and Monetary Problems*, fourth edition.

of its foundation the notes of the Bank of Scotland passed in most payments throughout the whole country. In less than the same ten years (1704), however, the bank was unable to meet its first run, owing to the insufficiency of its special reserve. Fortunately, on examination, it proved that the assets were well in excess of the liabilities if time were allowed for realisation, and the notes were for the time subjected to deferred convertibility with interest.

Readers of Adam Smith's account of the Bank of Amsterdam will remember that it was long believed by the merchants that for every guilder of bank money for which they held a receipt, there was a corresponding guilder in the bank. In Scotland, on the contrary, from the beginning the issue of notes was connected with the loan of the corresponding specie, and at the date referred to (1704) lending had been carried to such a pitch that to meet notes of £50,000 the bank held only some £1600 of silver, the great bulk of the remaining assets being incapable of rapid realisation.[1] At this time, also, deposits were not yet received, so that the public claim on the bank was entirely based, with the exception of a few bank drafts, on the notes. Notes for £1 sterling, or £12 Scots, were certainly issued in 1704, if not earlier, but there were no notes of lower denomination, and the greater part were of higher value. The intensity of the demand for conversion was thus much greater than was possible in later times. It will be readily understood that the issue of notes was long considered essential to profitable banking. It was natural, then, that as the country became familiar with the notes, and as new competitive banks were founded, there should be a tendency to over-issue, especially so long as the conditions of issue were practically unfettered by law. The cumulative effects of familiarity are well illustrated by the fact that in 1825 it was reported by a bank agent that the fishermen at Wick sold their

[1] Graham, *op. cit.*, p. 22.

herrings at a cheaper rate for notes than they would for gold, and, before dealing, strangers who had brought gold found it desirable to change it at the bank into notes. It is obvious that such confidence in the value of bits of paper could not have been acquired unless the issues had been long conducted on a sound basis. What constitutes a sound basis, however, Scotland had to learn by grievous experience under free banking. Two serious errors were made, and in each case a legislative remedy was found to be necessary. (1) The first error lay in the extension of the principle of deferred convertibility, an expedient which had proved necessary perhaps in an emergency being developed into a regular system. Notes were issued with an optional clause, the option consisting at first in paying a larger sum at a later specified date, the difference being supposed to be merely the equivalent of interest. The idea of option was soon extended from the option of time to the option of the mode of payment, various commodities being substituted for specie at the option of the banks. (2) The extension of options in time and kind was naturally accompanied by an excessive reduction in the denomination of the notes — the second vital error of early Scottish banking. To get the full advantage from deferred convertibility, the notes were lowered to the meanest capacity. An amusing skit is given by Mr. Graham[1] of a note supposed to be issued by a firm of self-styled bankers in Glasgow in 1765, the promise being to pay the bearer one penny sterling on demand, or in the option of the directors three ballads. In many actual cases, however, the option was in drink of various kinds, and sometimes in books.[2]

These two errors were remedied by Act of Parliament in 1765 (5 George III., c. 49). The optional clause was absolutely abolished, and the law of summary diligence,

[1] *Ibid.*, p. 62.

[2] See *History of Banking in Scotland*, by A. W. Kerr (p. 71), an excellent work, but not so detailed as Graham's.

which had been either evaded by the banks or not enforced by the courts, was made explicit and definite. In this way, so far as the law was concerned, convertibility was made prompt, and the whole resources of the bank were liable. At the same time, notes under twenty shillings sterling were prohibited under a penalty of £ 500.

Thus the Act of 1765 marked the recognition in Scotland of two great principles in the regulation of note issues. In the first place, a sharp distinction was drawn between immediate convertibility into specie and deferred convertibility after the realisation of securities of various kinds. Yet, even at the present day, in spite of the continual warnings of the experience of various nations at various times, it is sometimes maintained that a documentary reserve is amply sufficient. In the second place, it was recognised that if notes are very small, there may be an excess of issues in spite of the fact that they are nominally convertible. Considering the comparative poverty of Scotland at the time, the limit of one pound may be considered very high, and experience has shown that even with a great increase of wealth it is quite high enough. From the time when the Act of 1765 had come into full operation the notes of the recognised Scottish banks have never fallen below par.[1]

The term "recognised" in the last sentence has been used advisedly, in fault of a better, to suggest that there were in Scotland, as in other countries, banks and banks. One of the most remarkable features in the development of Scottish banking is, that in spite of its freedom from restraint, or perhaps in consequence of it, private banks succumbed to the great joint-stock banks, being finally extinguished or absorbed in 1830. There were in the last century, it is true, private bankers like Sir William Forbes who, in the conduct of banking business and in financial stability, were in the front rank, just as there

[1] Graham, p. 71. See, however, p. 121 for the effect of the English Bank Restriction period.

were joint-stock banks, notably Douglas, Heron & Co., of Ayr, which were utterly unsound; but, on the whole, it may be said that private banking in Scotland furnished the manifestation of a vicious principle which the incorporated banks successfully discarded. This vicious principle was the preference of mercantile and financial speculation to legitimate banking business. It has already been pointed out that at first the profit of banking was derived from note issues and the capital of the shareholders; that is to say, there were no deposits. Accordingly, it was for the interest of the banks to extend their note issues, and at an early date the Bank of Scotland and the Royal Bank endeavoured to establish branches in the principal towns of Scotland. Owing to the expenses of management, however, and the difficulties in communication, these branches were unprofitable. Under these circumstances, a stimulus was given to the creation of private banks, or mercantile firms were induced to take up banking business. In some cases they issued their own notes, often under the vicious system remedied by the Act of 1765, and in other cases they issued the notes of the old banks. In either way they fulfilled some of the functions at present fulfilled by the branches of the metropolitan banks, and to a great extent they came to act as intermediaries between these banks and the public. The principal abuse of the system was that in reality they often applied the funds obtained from the old banks to speculative purposes instead of to the legitimate demands of trade. In process of time many of these bankers became directors of the great joint-stock banks, and in this way controlled still more effectually the advances made to the public, and it is said that they compelled even old customers to make application through their own banks, under pain of refusal.

So far, in this survey, the attention has been directed almost exclusively to the methods and consequences of the issues of notes. In any modern industrial society, how-

ever, that is at all well banked, the issue of notes is a comparatively small part of the business. In England, for example, owing to the original monopoly of the Bank of England, the great joint-stock banks which transact most of the banking of the country have no right of issue. It is true that in Scotland, as already indicated, and as will be shown more fully presently, the right of issue is intimately connected with other banking business, but this business could never have been developed if the banks had continued to depend solely on the capital of the shareholders and the money obtained from the public in return for notes. The chief function of modern banks is to collect all the surplus capital of the country in the form of deposits and to lend it out to the most profitable undertakings. It is in this aspect that the Scottish banks are probably the most efficient in the world, and, as before, the present condition is the result of the continuous development and extension of certain distinctive principles. The most remarkable and effective is the cash-credit system. The essence of this plan is to allow traders, farmers, and others to open accounts with the bank with credit up to a certain specified sum, on the personal security of themselves and their friends, interest, of course, being charged only on the amount drawn.[1] In this way a man of ability can obtain capital when otherwise he would be unable, and to obtain it at the cheapest rate possible under the circumstances. The curious thing is that in Scotland this cash-credit system preceded the deposit system, which, as Mr. Graham[2] remarks, looks as if in worldly matters there might be an exception to the rule *ex nihilo nihil fit.* This "most strikingly original invention," as it was called, was due to the Royal Bank in 1728, that is to say, very soon after its foundation. The solution of the paradox is to be found in the circumstances of the time. The capital

[1] The cash-credit system was well described by Hume in his *Essay on the Balance of Trade.*

[2] Graham, *ibid.*, p. 55.

of the bank was comparatively large, and from the first it issued notes, and, indeed, its first efforts were directed towards replacing the notes of its rival, the Bank of Scotland.

At the same time the field for the employment of money upon tangible security was limited, and thus the idea arose to lend on what may be called security intangible, or on personal, instead of material, capital. "This profitable business went on during the year 1728, the Bank of Scotland meanwhile looking on with envious eyes. Unfortunately, its power of attracting a share of the gains was small. The note issue was already considerable, and required some new energy to increase it, while the idea of calling up more of its capital was contrary to its traditions as suggesting the possibility of a lowered dividend, and, therefore, only to be thought of as a last resort. In this predicament, the old bank, thoroughly aroused to the necessity of a struggle for existence, behaved with remarkable astuteness, and adopted the enemy's cash-credit system in 1729; but, being then in the thick of the fight as to its notes, and apparently feeling its inability to launch the new system without extraneous aid, it at the same time took a step in advance of the Royal by receiving deposits on its treasurer's bond at the rate of 5 per cent per annum, the forerunners of their deposit receipts of 1810."

The institution of cash-credits and deposits enabled the old banks to obtain a great accession of business, but in the absence of branches this was mainly effected through the private banks. These banks themselves obtained cash-credits, and thus became still more than was shown above the intermediaries between the old banks and the public. They did not, however, perform the duties of agency very efficiently, and the wonder is that the old banks did not sooner renew the attempt to establish branches, especially as under the existing system there was a glut of capital in Edinburgh and Glasgow and great

dearth in the country and country towns. At present the most striking feature of Scottish banking is the ramification of the branches throughout the length and breadth of the land.

Again, the country development is interesting and instructive. The lead in this extension was taken by the British Linen Company, which, for some time after its foundation (1746), was not a bank, but, as the name implies, simply a company designed to trade in linen, and, as its charter expresses it, to do everything that may conduce to the promoting and carrying on of the linen manufacture. It was principally owing to the fact that its business offered facilities for the establishment of branches and that its directors had the sense to make and take advantage of the discovery, that in process of time it became a bank pure and simple, and caused a vast extension of banking throughout Scotland. In its first year the company discounted bills and granted drafts, and in its second year began to issue notes. The right of issue was at this time unrestricted by the common law, and, in any case, the company could plead that its notes were for the benefit of the linen trade. The principal point to observe, however, is that it took the lead in establishing branches, and that these branches owed their success largely to the right of issue. It is worthy of remark that when, in 1845, the authorised issues of the various banks were limited in the way to be described presently, the British Linen Company had the largest amount in circulation, the principal portion being one-pound notes.

As the object of this paper, on the historical side, is simply to explain the present by the past, it seems best at this stage to explain the present connection between branches and note issues in the Scottish banking system. In the first place, however, the reader may be reminded that the attempt to abolish one-pound notes in Scotland in 1826, on the ground, as Sir Walter Scott puts it, that "because England had eaten sour grapes the Scottish teeth

were to be set on edge," aroused such national hostility that it was abandoned. The second attempt to introduce uniformity of principle was somewhat more successful, and, at any rate, had important consequences. By the famous Bank Act of 1844, on which the commentaries and controversies form an enormous literature, the issues of notes in England were strictly limited. Briefly stated, the Bank of England was allowed to issue some fifteen million of notes on, or against, securities, but for any excess of issues it must have an exact equivalent of gold in its vaults. Thus the notes were regarded, after a certain point was reached, simply as a convenient form of currency. They were not to be used for banking purposes in the sense of extending credit operations of various kinds. At the same time, the English country banks, which had a right of issue (joint-stock banks within a certain range of London had no such right), were to be allowed still to issue an amount determined by the average of their circulation in the three preceding months. This maximum amount they could not exceed, even if against their excessive issues they were to hold Bank of England notes or gold itself. The system was, as Bagehot called it, a cast-iron system. Already, as indicated above by the Act of 1826, no notes under £5 were to be issued, and this provision was confirmed. In the Act of 1845, by which it was sought to apply the same principles to Scotland, important modifications were introduced. In the first place, warned by experience, the government made no attempt to abolish one-pound notes. To this day these notes are generally preferred to sovereigns by the mass of the people. Secondly, although the issues were restricted, an element of elasticity was introduced. As in England, only those banks which at the time issued notes were to have the right of issue; and, as in England, the authorised amounts of issue were determined by the previous averages. So far the idea of the cast-iron system was preserved. But the privilege

accorded to the Bank of England and denied to the English country banks, namely, the right to issue against gold to an unlimited extent, was also accorded to the Scottish banks and accorded, too, with a point of difference in their favour. The Scottish banks were allowed to issue notes against gold in excess of their authorised issue, the gold to be held at their principal offices, and the amount to be determined by the average *monthly* circulation. It is not necessary to quote the precise terms of the Act by which the averages are determined and verified. At present it is sufficient to state that the system has proved perfectly practicable and efficient, that is to say, according to the idea of its promoters. It might well appear, however, to those unfamiliar with effects of the plan that the privilege was of very trifling value. It might be thought that the place where the gold reserve was to be held was a matter of no importance, and that the difference between the reserve equal to the monthly average of notes in excess and the actual use of so much gold coin was hardly appreciable. The privilege, however, small as it may seem at first sight, is the basis of most that is distinctive at the present time in Scottish banking. Taken in connection with the restriction of the right of issue to the banks exercising this right in 1846, it has sufficed to give to those banks a monopoly, or, in other words, has rendered it impossible, or, what is the same thing, unprofitable, to set up a new bank in Scotland. It has also allowed the Scottish banks to set up branches in places to which, under the English system, banking could never have penetrated. The two facts are closely connected, and the principal connecting link is the one-pound note. Under this system the branches of the existing banks can hold an effective reserve and a sufficiency of till-money at practically a nominal cost. Until they put their notes into circulation they cost little more than the paper and printing. When they do put the notes into circulation they, of course, do so only for a consideration of some kind. Fur-

ther, the reserve is held by the central offices and is determined by the monthly average. The consequence is that in Scotland branches can be kept open at much less expense than in England. In England the great joint-stock banks, with their principal offices in London, have no right of issue, and the country banks cannot exceed a certain amount. As a consequence, every branch is obliged to use sovereigns or Bank of England notes for its till-money, and the expense acts as a prohibitive duty on the establishment of branches.

There are, however, in Scotland still some elements of expense, mostly in connection with the note issues, apart from the mere cost of production and management. For a long period most of the banks were obliged to issue their notes upon stamped paper. One consequence was that the notes remained in circulation until they were almost illegible through wear and tear and dirt. In 1853 the banks were allowed to commute the stamp duty into a fixed payment *per centum* on the amount actually in circulation. As it is, however, the notes are reissued, and not, as by the Bank of England, destroyed and replaced by new ones; and it is calculated that if the English plan were adopted the circulation of one-pound notes would not be profitable.

There are in Scotland two periods in the year at which a large increase in the circulation of the notes takes place; namely, at the "terms" in May and November, when a great many payments, such as rents, wages, etc., are to be made. It is in these times that the necessity for holding gold at the central offices against the excess of issues is most felt, and in a sense appears to be ridiculous. What happens is that the banks, in order to conform to the law, are obliged to bring gold from London, the Bank of England holding the ultimate reserve of the whole country, and as soon as the periodic drain is over the gold is returned, having never been unpacked from the boxes in which it was transmitted. The expense to the banks

is, of course, relatively not of much importance, but in times of stringency this sudden drain on the Bank of England may be inconvenient, although the cause is perfectly understood and the return of the gold in a short time certain. It must not be thought that the Scottish banks complain of this periodical display of their dependence on the Bank of England, and the expense connected with it. As a matter of fact, in normal times they habitually keep more gold (at present about £1,000,000) than they are strictly compelled to do according to their issues and the probable demand. As already explained, Scottish banking, in the ordinary sense, was historically closely connected with the right to issue notes. Even now, the issue and the banking departments, to adopt the phraseology applicable to the Bank of England, are more closely connected than in most countries. Partly in consequence of this close connection and partly as the result of the common law and legislation, the security for the convertibility of the notes has always been considered of primary importance. In spite of the large proportion of the one-pound notes, that security may at present be considered practically perfect. Any danger there may be in a run is not from note-holders, but from depositors; and the excess of gold held by the banks is of the nature of a general banking reserve, not being specially earmarked for the notes. The convertibility of bank notes obviously depends not only on the amount of gold held in reserve, but on the proportion of notes likely to be presented in the most extreme circumstances of panic. The strength of the Scottish system is mainly due to the fact that, owing to long experience, the people are so familiar with notes and so confident in their stability of value that if they happen to become afraid of the notes at one bank they would probably prefer the notes of other banks to gold itself. In order to explain this apparent paradox, reference must again be made to the historical development, and especially to a part hitherto passed over in

this paper; namely, the old established practice of note-exchanges. The Edinburgh banks began the system of exchanges about the middle of the last century, and in the course of time compelled the country banks to adopt it also. The good effects of the system soon received a remarkable illustration. The famous Ayr bank, — Douglas, Heron & Co., — which adopted the most reckless methods of lending, amongst other devices threw into circulation large masses of notes. Owing, however, to the system of exchanges, those notes were promptly returned by the other banks, and payment must be made under the penalty of insolvency. The consequence was that the Ayr bank was obliged to use all its credit to raise funds in London, and on the outbreak of the panic of 1772 it at once felt the shock. By the Act of 1765 it was compelled to pay its notes on demand, and by the system of exchanges the notes were returned as fast as they were issued when the actual channels of circulation had been filled. It is worth recording that almost from the beginning the system was used by each bank, not merely for its own protection, but for the safety of the public. Thus, when the Ayr bank was compelled to stop payment, the Bank of Scotland and the Royal Bank undertook to pay all the notes of the bankrupt firm. The same responsibility was undertaken by the other banks on the failure of the Western Bank in 1857 and of the City of Glasgow Bank in 1878. This mutual responsibility for note issues, now extending over nearly a century and a half, has given to the Scottish notes a stability of value that is not excelled by those of the Bank of England.[1] In recent years the system has been strengthened and practically perfected through the adoption of daily exchanges. The fundamental importance of the absolute security of the notes has been recognised by excluding them from

[1] It is worth observing that neither Bank of England notes nor notes of the Scottish banks are legal tender in Scotland.

the operation of the principle of limited liability, which otherwise is now applicable to all the Scottish banks.

The adoption of limited liability under the Companies Acts by the younger banks, after the failure of the City of Glasgow, has practically placed all the Scottish banks on the same footing. There are at present in Scotland ten banks which may be nominally divided into three classes; the differences, however, are, to all intents and purposes, historical survivals.[1] The first class consists of three chartered banks, in which the liability of the shareholders is assumed to have been always limited by the terms of the charter. These are the Bank of Scotland, the Royal, and the British Linen. The second class consists of two chartered banks, formerly unlimited, but now limited by the Act of 1879, namely, the Commercial and the National. The five remaining banks are now incorporated and limited under the Companies Acts, 1862 to 1880. All these banks practically do the same business and have the same privileges. The amount of notes allowed by the Act of 1845 varies in the different cases, and the older banks are not obliged to proclaim publicly the limitation of their liability. The effect of these differences is, however, very slight.

Apart from the issue of notes, all the banks perform the business that is commonly classed under banking. Most of the distinctive and peculiar features have been already indicated, *e.g.*, the cash-credits, the deposit receipts, and the note exchanges. It is fully recognised that all advances must be on securities that can be readily realised without loss. The experience of the City of Glasgow still bears fruit, not only as regards the responsibility of directors, but as regards the nature of investments. To describe more in detail the nature of the ordinary banking transactions would involve an account of much that is common to all the highly developed nations. In conclu-

[1] *Cf.* Kerr, *op. cit.*, p. 7.

sion, however, one or two differential points may be noticed. In certain matters the banks, in spite of their keen competition otherwise, take common action. Thus, they fix the rate of interest allowed on deposits at a uniform rate, and the rate is determined by the rate of the Bank of England. Until recently — October 1, 1892 — the banks allowed interest on current accounts, at first calculated daily and, later, on a monthly average of the balances. The fall in the rate of interest on banking securities, coupled with the fact that it was no longer necessary to attract business, led to the abandonment of the practice. The Scottish banks adapt themselves more than most banks to the needs of small customers, whether private people or retail traders. They do not object to cheques for small amounts, and they grant overdrafts and cash credits on the same scale. *Per contra*, however, the great merchants complain that they can obtain accommodation cheaper in London than at home, and that the Scottish banks, through their London agencies, lend at a lower rate to English merchants than they will accept in Scotland. It is impossible for an outsider to express an opinion on the reality of this grievance. The conjecture may be hazarded that the banks could justify their conduct so far as it is alleged by the general nature of their business as a whole ; they may, for example, gain more indirectly than they lose directly through their London connections.

Finally, a fact may be mentioned which shows, in a striking way, the effect of the historical development which has been the guiding thread in this brief account of a complex system. The Edinburgh banks were all established before the others, and they transact 70 *per centum* of the entire banking business of Scotland. The Glasgow banks conduct 23 *per centum*, and the provincial banks 7 *per centum*. Having regard only to the relative wealth and population, it might have been expected that the proportion for Glasgow and Edin-

burgh would have been reversed. This fact also calls attention to the efficiency of the branch system, and to the truly national character of the banks. It should never be forgotten that this effect is principally due, not to the action of the central authority, but to that freedom of action and freedom of movement of which the great Scottish economist is the chief exponent.[1]

[1] At the same time it should be remembered that Adam Smith by no means approved of absolutely free banking. He wrote about the time of the Ayr failure.

## CHAPTER XX.

### BANKS OF DEPOSIT AND DISCOUNT.

§ 1. *Deposit Banking in its Simplest Form.* As already indicated, the function of banking in the more special sense of the term may be described provisionally as receiving money on the one side and lending it on the other. The profit is made by paying less for the money received than is obtained for the money lent.

The whole difficulty of the subject consists in the fact that "money" is a variable and elastic term.

In its simplest form this receiving and lending of money presents no difficulty in understanding, although practically it is difficult at first to induce people to entrust their money to banks. This simple case is when people take so much actual metallic coin to bankers (*e.g.*, goldsmiths), and the bankers lend it to government on the security of taxes. We may suppose for further simplicity that the people lend the money for a year to the bankers, and the bankers for a year to the government. Thus economically what the bankers do is to collect these relatively small sums into one mass and lend the total, retaining a certain portion of the interest by way of commission or profits of management.

The next stage is a little more complex. The bankers receive these small sums at different times, — day by day or week by week, — and they have to repay them at different intervals — some on demand and some after a fixed period of varying length. Thus so far as the bankers and their creditors are concerned there is a varying stream of

money flowing in, in the form of deposits of coins, and a varying stream flowing out in the repayment of these deposits, also in coins. If, however, the bankers have good credit and are trusted, people on the average will leave a large part of their money constantly with the bankers; old deposits may be withdrawn wholly or partially, but new ones are made; so that the bankers soon discover by the law of average applicable to the case that they can always reckon on only a part of their deposits in coin being withdrawn from day to day and year to year.

Accordingly if they keep in hand a sufficient amount of coin to meet any probable demand, they can lend the rest at interest.

This, then, considered logically, is the essence of early banking, — to receive metallic money, to keep enough to meet actual demands, and to lend the rest.

§ 2. *Progress of Deposit Banking.* The progress of banking consists partly in making the proportion of metal that must be kept smaller and smaller. In this progress the next step logically [1] is to issue notes payable on demand; people then gradually get to look on the notes as being just as good as the metal and more convenient. Thus, instead of taking out the actual deposits of coins, they may take out notes, and so far it is sufficient for the banker to keep enough metal to meet the notes actually presented; that is to say, he need not keep so much metal as before, as some people will always prefer the notes

Next we may suppose that the depositor of coin may prefer in place of notes to have a credit at the bank, on which he may draw at any time by a cheque. As this system spreads, those who receive notes in the ordinary course of trade pay them into the banks to increase the credit at their account.

Similarly, those who receive cheques, instead of draw-

[1] In time, note issues often precede deposits; *e.g.*, *cf.* Appendix on Scottish Banks.

ing out the amount, pay them into their account. If the drawer and receiver deal with the same bank, this leads simply to a transfer in accounts, and if they deal with different banks, the "clearing-house"[1] system enables the banks to balance their accounts either without the transfer of specie at all, or only to a relatively small extent.

Thus we reach the result that if all the people in any country were to use the same bank (or banks closely connected), every transaction might theoretically be effected without any metallic money at all passing, so that the bankers might, if they chose, send all their coin abroad for investment. The necessity, however, in practice, of a real metallic reserve will be shown presently.

So far we have looked at only one side of the account; namely, the deposits of the customers of the bank at first in actual money, and later in notes or cheques received from others. We must now consider more closely what the bankers do with these deposits, and how far, instead of being purely passive receivers, they can themselves increase the deposits.

At first, as just explained, all the bank can lend is the actual coin deposited (apart, of course, from the original capital), but as soon as its notes are recognised and generally accepted, a borrower may prefer notes to coin. Thus the bank may lend its notes and charge interest with perfect safety, if on the law of average it keeps amply sufficient to meet current demands for coin. But, as before, most people who receive the notes will in time pay them in to their accounts, and will not draw out the metal. Thus the bank might lend the notes again, and the process might continue indefinitely.

The cheque system, however, renders this increasing lending of notes unnecessary. Accordingly, if a borrower comes to the bank, the banker (if satisfied with the security offered), instead of advancing gold or notes, may

[1] For details of the mechanism, see Jevons, *Money*, Ch. XXI.

simply open an account for him, or increase his credit to that extent. The borrower then draws cheques on this account, and his credit is gradually transferred to others. But in the meantime, if his business is profitable, he adds to or renews his credit, and cancels his debt to the bank. His object will be only to keep at the bank enough for current requirements, and he will draw cheques on the remainder for profitable investments.

It is obvious also that no one will, in the ordinary course of business, borrow from the bank and pay interest unless he hopes to make a higher profit. The profits of trade thus form one very real limit to the advances of bankers on credit and to the artificial increase of deposits. One of the most common forms of advances is by the discount of bills.[1] A trader has sold goods to receive payment in (say) three months; he virtually sells the bill to the bank for its present value, and the bank gives him an immediate increase of credit to that extent. But all these various credits are practically on the same footing as the original simple deposits of coin payable at call, although now, instead of being in metal, they are in "bank money," which on analysis consists of the credit of the bank.[2]

§ 3. *Popular Errors as regards Deposits.* We may now dispose of two popular errors as regards deposits. In the first place it is often supposed that the banks have actually received so much coin and have this coin at their disposal; as a matter of fact, only a small part of the deposits has been received in coin and a still smaller part is kept in reserve, and if all the banks in England were called on to meet all their claims at once, they could not pay in coin a shilling in the pound. In precisely the same way, however, if all the people who have insured their lives were to die suddenly at the same time, the insurance companies could not meet their claims. But ex-

[1] In practice, the banks may lend to a special class of bill-brokers, but the result is the same, the brokers being only intermediaries.

[2] Cf. Dunbar, *op. cit.*, Chs. I.–III.

perience gives the rates of mortality and also the rates of demands on the banks. Both are determined by averages.

In both cases, however, the real demands must be met and the available reserve of every bank must be always equal to any possible claim — possible, that is to say, according to the extremes of experience.

And this leads me to notice the second popular error on the other extreme of the truth. People are apt to suppose, seeing that "bank money" is for the most part in the form of credit, that it can be indefinitely increased at the will of the bankers. Because credit is intangible and immaterial it is apparently supposed to be something of the nature of a work of the imagination. But credit is by no means such an airy creation, and reality is not limited to the tangible and material.

Accordingly it may be useful to emphasise once more the reality of the limits to the expansion of credit and to the creation of this bank money.

§ 4. *Limits to the Creation of Bank Money or Deposits.* (1) Every one who obtains credit from a bank — to draw against by cheques — is obliged to give some kind of security. It may be stocks or shares, or bills drawn against goods sold, or it may be the bank advances on the personal credit of the customer (by way of over-draft), or on the credit of his friends (as in a cash-credit). But it is perfectly plain that these credits must rest upon real foundations just like the good-will of a business. (2) The bank charges interest upon its advances of all kinds, and no one will seek for advances unless he can employ the credit profitably or unless he wishes to anticipate revenues due to him in the future. Thus the demand for loans must be an effectual demand, or the demanders must be able and willing to pay the price, that is to say, the interest. (3) Further, when a bank gives an extension of credit to a customer, it must be prepared to meet his cheques in any form the receivers require; it may be

for wages, or for foreign payments, and either would lead to a real drain on the "cash" reserves.

Thus the advances of a bank are limited by its available reserves. Practically the same principle is involved as in the reserves held against issues of notes. Just as deferred convertibility or ultimate solvency is not a sufficient guarantee for notes, so also as regards cheques. If a merchant cannot meet his bills, he is bankrupt, and he cannot meet his bills if his banker cannot meet his cheques. A bank must be prepared to meet any cheques drawn against it immediately. In many of the most important banking failures on record banks have ultimately been able to meet all claims, but their funds have been locked up and not available. Their securities have been good investments, but not available in times of panic.

§ 5. *The Management of Banking Reserves.* The principles that should govern banks in the management of their banking reserves have been admirably brought out by Bagehot,[1] with special reference to the Bank of England, of which the reserves form the foundation of the whole credit system of the United Kingdom.

The most obvious consideration to take account of is, first of all, the amount of the liabilities, but it is not possible to lay down any proportionate reserve which might be considered as adequate under all conditions. Besides the mere amount of his liabilities a banker must consider the *times* at which they become due, whether the claims may be immediate, or whether some notice must be given, or some definite date be reached. He must consider also the *intensity* of the demands, or perhaps a better term would be the uniformity (or the reverse) of the demands. By this is meant how much of the total is due to one creditor or group of creditors liable to be influenced by the same causes in the same direction or, conversely, how much is due to customers whose opera-

[1] *Lombard Street*, Ch. XIII.

tions are likely to differ; that is to say, the same cause inducing some to increase and others to diminish their deposits. In other words the banker must consider how far the demands upon his reserves are calculable. To these conditions as laid down by Bagehot it may be well to add explicitly the *nature* of the reserves. In practice in this country the banks only keep enough coin and notes for day to day use — so much till-money, the real ultimate reserve being with the Bank of England.

But what other banks (*e.g.*, provincial) regard as a reserve consists of readily convertible securities such as consols, of money at call with bill-brokers, and of a credit balance with their London agent or at the Bank of England. As a matter of fact, however, the Bank of England may lend the bankers' balances.

It has been shown by experience, that even in the worst crises the notes of the Bank of England are above suspicion. Accordingly, if the Bank of England could advance to other banks in times of crisis enough notes to replace the other forms of shattered credit, that would suffice for these banks. In other words, Bank of England notes could meet any internal drain, especially as its notes are legal tender except by the Bank itself. But by the Act of 1844 the Bank cannot issue more than a certain amount except against gold. A suspension of the Act, however, enables the Bank in an emergency to exceed this limit, and the mere announcement of the suspension has sufficed to allay a panic, as in the crises of 1847, 1857, and 1866. The suspension of the Act does not imply that the notes are no longer convertible (as was the case during the period of the Bank Restriction, 1797–1823); it simply means that the Bank can issue more notes than the authorised amount. It is a case of temporary elasticity instead of the permanent elasticity of the German system.

Other circumstances besides this latent power, in its notes and the gold held against them, seem favourable to

a relatively small reserve being adequate for the Bank—so far as any internal drain is concerned. The principal customer of the Bank is the government, and all the material facts relative to revenue and expenditure are well-known. Again, payments of dividends due by the government to holders of consols generally result in a short time in a transfer from the government account to the accounts of various banks.

And the result appears equally favourable to the Bank when we look at the private accounts. The largest part consists of deposits by bankers as their reserve. In ordinary times these balances are used mainly to meet clearing-house transactions, and though transfers are made from one account to another, the aggregate amount is very stable. And, further, in times of panic or fear of panic, other banks as a matter of precaution endeavour to increase their balances with the Bank of England.

But all these considerations, which might lead us to regard the reserve of the Bank of England as purely idle and passive, are altogether thrust aside by one species of liability which can in the last resort be met only by gold. This is the liability to a foreign drain which may arise in an unexpected way and to an unknown extent.

Bagehot gives as an illustration the payment of the French indemnity to Germany made to a large extent through London. The essence of the operation was a transfer by the French government of various amounts to the credit of the German government. If the German government chose to demand gold, the gold could only be provided by the Bank of England. A later example was the payment by China to Japan of the war indemnity, which for a time gave Japan a similar power of withdrawing gold. But the case of foreign governments, though the most striking, is not the only or indeed the most frequent case in which sudden and unexpected demands may be made for gold.[1] In England, the last

[1] See next chapter.

notable instance was in the failure of Baring's, when the Bank of England was obliged to borrow £ 3,000,000 of gold from the Bank of France, and one and a half millions from Russia. The necessity of the Bank of England keeping a relatively large reserve is best shown by the history of Commercial Crises.

## CHAPTER XXI.

### COMMERCIAL CRISES.

§ 1. *Brief Résumé of the History of Commercial Crises in England*, 1793–1866. "There is said to be a commercial crisis when a great number of merchants and traders at once either have or apprehend they shall have a difficulty in meeting their engagements" (Mill). If this definition be provisionally accepted, it follows that the essence of a commercial crisis is a break-down of mercantile credit, which again is generally associated with pressure upon the banks, culminating in a general financial crisis. A brief survey of the history of commercial crises in England from the industrial revolution will prepare the way for a summary account of the causes and development of crises.

The crisis of 1793 was preceded by a period of over-speculation and undue extension of credit, especially on the part of country banks, and also by the conversion on a large scale of circulating into fixed capital in the shape of machinery and canals.[1] There was, for the time, a general expansion of trade, owing to these improvements in production. The crisis was precipitated by political causes, especially the war with France, the war naturally causing a drain of gold. At the same time there was a deficiency in the harvest. The crisis was marked by many failures of country banks and a consequent distrust of paper and a desire to hoard the precious metals. The

[1] Macpherson, *Annals of Commerce*, Vol. I., p. 226. Leone Levi, *British Commerce*, second edition, p. 69.

general result was a contraction of the various forms of currency, which was met to some extent by the issue of exchequer bills to the great mercantile houses against securities or goods. Eventually, a continuance of the same unfavourable conditions culminated in the suspension of cash payments by the Bank of England in 1797.

The crisis of 1810–11 was preceded by a great inflation of prices partly due to the issues of inconvertible paper. As a consequence of the rise in prices importation was heavily increased, whilst exports were diminished, and in particular all exports to the Baltic ceased. Thus again there was a drain of gold and a heavy fall in prices. One of the principal results was the Report of the Bullion Committee, which though at first rejected ultimately led to the resumption of cash payments (1819).

The crisis of 1825–26 was preceded by a period of prosperity marked by good harvests, good credit, a low rate of interest, and a general peace following a prolonged and general war. There was a rise in prices both of securities and commodities accompanied by over-speculation in companies and loans. The consequence was over-importation and a drain of gold. The Bank of England was compelled to borrow gold from the Bank of France and to make use of a number of one-pound notes which had been withheld from circulation. The remedy against a recurrence of the evil was supposed to be found in the extension of branches of the Bank of England and in the establishment of joint-stock banks. What was really due to an inflation of prices was ascribed to a deficiency of currency and banking accommodation.

The crisis of 1837 was preceded by a period of low prices and steady quiet trade. The principal cause of the crisis was over-speculation in new companies, especially railways and mines. The conversion of circulating into fixed capital on too rapid a scale led in the usual way to a foreign drain. The Bank of England was again blamed for the mismanagement of its note issues, whilst the real

evil, so far as the Bank was responsible, was to be found in the mismanagement of the banking reserves, and especially in not raising the rate of discount sufficiently soon and to such a height as to check the drain. In this crisis, also, the influence of America may be cited as a contributary cause. A financial crisis had occurred in the United States, owing to unsound banking, and the Bank of England suddenly refused to advance on American securities, thus giving a shock to mercantile credit. The crisis led to severe commercial distress, and again a remedy was sought for in currency legislation, which found expression eventually in the Bank Charter Act of 1844.

The ostensible object of this measure was to check the inflation of prices by limiting the issues of notes.

As if to show at once the inadequacy of the remedy the crisis of 1847 supervened. It was preceded by a great increase in wealth, a low rate of interest, and especially by the great development of railways. The principal cause assignable was again over-speculation in companies, and the immediate cause of the collapse was the failure of the harvest and the potato famine, with a consequent excess of imports and a drain of gold. The Bank Act was suspended, but no extra issues of notes actually took place.

The crisis of 1857 was preceded by a period in which there was a great expansion of foreign trade, partly due to the great gold discoveries in Australia and California. During this time the gold in the Bank of England increased beyond any point hitherto attained, a low rate of interest prevailed, prices gradually rose, and a large number of new companies were floated. The immediate causes of the collapse of unsound speculations were the strain imposed by the Crimean War, the exportation of the precious metals to the East for investment in railways and payment of an adverse balance of trade, and a financial collapse in America. The consequent drain of gold was met by a suspension of the Bank Act and a rise in the Bank rate to 10 per cent.

The crisis of 1866 was preceded by the usual period of steady trade, leading as before to an immense growth of companies, which was partly stimulated by the Limited Liability Acts. The special feature was the creation of finance companies formed to float other companies. A drain of treasure to the East was caused by the expensive imports of cotton due to the failure of American supplies, owing to the Civil War. The crisis was precipitated by the failure of Overend Gurney and Co., and was again met by a suspension of the Bank Act and a sharp and great rise in the Bank rate.

§ 2. *Causes of Commercial Crises.* In the light of these representative historical facts the causes of commercial crises may be divided into two groups — first, those which lead to the inflation of credit and prices, and, secondly, those which lead to the inevitable collapse. In considering the period of incubation it is convenient to distinguish between the commercial and the financial elements. On the commercial side we generally find a *bona fide* expansion of trade and industry, associated with higher profits and wages, and an increase of accumulations. This expansion may begin with any one great department, but the extra money incomes obtained by those employed in this group will be spent partly upon the commodities produced in other trades, and there will be a general increase in consuming power. In part, however, the rise in money incomes will lead to an increased demand for old securities. The consequent rise in price of the stock and fall in the yield of interest will give a stimulus to the creation of new companies.

Many of these companies will be unsound, and the shares will be bought partly by a deluded public, and partly by those who wish to sell again and pocket the differences. As a rule, the speculation in any one group will extend to other groups, and there will be a general inflation of securities, and as a rule also a corresponding speculation will arise in commodities, accompanied by a

general rise in prices. Under these influences there will be an over-specialisation of capital and over-production relatively to the means of organisation and the methods of distribution.

On the financial side we observe the gradual extension of unsound or hazardous advances by banks with mismanagement of investments and reserves. The speculation in companies and securities may be due not as before noted to a real increase in wealth in the first place, but to an increase in confidence, a forgetting of former failures, and a dissatisfaction with a low rate of profits and interest. Occasionally the immediate cause of a financial inflation may be traced to great discoveries of the precious metals, or the unlocking of hoards, but it must be borne in mind that under modern conditions the same metallic reserves may support different levels of prices according to variations in credit.

The causes of collapse may be conveniently arranged in two divisions. In the first place, anything that gives a severe shock to credit is a sufficient cause. Thus the outbreak of a great war or revolution, the repudiation by any government of its obligations, or any political event that causes a sense of insecurity in any great country, may suffice to shake the credit system of the whole commercial world. The great commercial nations are now so closely united by reciprocal interests that a commercial crisis cannot be isolated though the country of its origin may feel the effects most severely. Even the failure of any great credit institution such as a bank or firm of bill-brokers may suffice to bring about a general sense of insecurity and distrust.[1]

In the second place, anything that affects the ultimate reserves or the real foundations of the credit system may cause a collapse. An internal drain due to increased payments in wages, and the retail trades if not met by a

[1] During the last quarter of a century the management of credit institutions has improved, and, so far, the risk of a general collapse is lessened.

restriction of advances, may bring the real reserves to the danger point. A foreign drain, however, is still more serious and more certain in its effects. In the last resort a foreign drain will fall on the metallic reserves, in England, practically on the reserves of the Bank of England. A rise in the Bank rate will tend to attract gold from abroad;[1] the Bank may also obtain gold by selling securities, or by borrowing from other national banks. A rise in the rate will also check advances, and so far tend to counteract or reverse the rise in prices. But the replenishment or strengthening of reserves will take time, and in banking and credit time is of the utmost importance.

No one questions the ultimate solvency of the Bank of England, and yet it is none the less true that if the gold available as a reserve falls below a certain point, higher or lower according to varying conditions, a panic will ensue. A foreign drain may arise in several ways. It may be due primarily to political causes, to war or fear of war, to excessive investments abroad, or to an adverse balance of trade. The adverse balance of trade, again, may itself be due to an excess of imports caused by a bad harvest, or by the rise in the price of raw materials, or by the undue conversion of circulating into fixed capital, or the adverse balance may be due to a falling off in exports through hostile tariffs or foreign competition.

§ 3. *Periodicity of Commercial Crises.* Attention has often been called to the periodicity of crises.[2] After the occurrence of a crisis, there is, in general, a period of depression with restricted confidence and want of enterprise. That the depression is real, in the sense of affecting the producing and consuming powers of the people, is shown by various kinds of statistics. There is, in general, a falling off in the employment of labour and an increase of pauperism; as regards capital, falling profits are shown by the income tax returns, and the contraction of

[1] See the chapter on the Foreign Exchanges.

[2] *Cf.* article in Palgrave's *Dictionary of Political Economy.*

enterprise is evinced by the reduction in the flotation of companies; the slackening of trade is revealed by the statistics of exports and imports, by the diminution of the returns of the clearing-houses and railway receipts, and the yield to taxes on commodities shows directly the decrease in consuming power. A low rate of interest, an abundance of "money," a fall in all the more speculative securities, especially compared with those of the first class, point to a contraction of enterprise and a check to the expansion of industry. It must be observed, also, that in progressive societies, the depression must in many respects be measured by the decrease in the rate of progress, rather than by any absolute diminution; *e.g.*, in rate of the expansion of foreign trade.

Gradually the period of depression gives place to a steady quiet improvement, which is shown by similar statistical evidence. As a rule, also, there is a slight upward movement in the prices of commodities, and of the securities with dividends dependent on trade. An improved demand for "money" is shown by the gradual rise in the rate of discount and a corresponding fall in the price of first-class securities with fixed interest; *e.g.*, consols and railway debentures. The period of steady prosperity, in its turn, gives way to a period of inflation culminating in a crisis. Up to 1866, these trade cycles seemed to take on the average about ten years for completion, and economists (*e.g.*, Jevons) had begun to think the decennial periodicity had been inductively proved, and they sought to give a deductive proof by tracing the connection with certain physical periodic events (*e.g.*, sunspots). Since 1866, however, the periodicity has not been so well defined and the references to the statistics indicated do not give such uniform results. A great inflation of trade and speculation followed the conclusion of the Franco-German War, a depression set in about 1873, and a revival seemed to begin in the autumn of 1879. Since that year there have also been fluctuations in trade

and occasional outbursts of speculative activity in limited spheres. There has been on the whole, especially in the United Kingdom, a growth of national income and an increase in accumulated wealth. This is all the more remarkable as the general fall in prices shows that the real is even greater than the nominal increase in consuming power.[1]

This general increase of revenue has also taken place in spite of the severe depression in agriculture, which still ranks as the foremost industry in the country. The abundance of "money" has been so great, that the rate of discount has remained for a lengthened period abnormally low, and the prices of first-class securities have reached unprecedented heights. The recent (1895) speculation in South African mines and land companies showed that the gambling spirit is not yet dead, but the speculation and the crisis were localised.

It is hazardous to express an opinion on the causes of periodicity at a time when the periodicity itself seems questionable, but I venture to suggest that the causes should be sought for rather in mental than in physical phenomena. The most striking features in the well-marked cycles up to 1866 were the contraction, expansion, inflation, and final explosion of credit. The cycles were especially credit cycles, and the effects on trade were apparently indirect. No one now will question the importance of the organisation of credit, in production and consumption. But credit, although requiring for its full development certain material appliances (*e.g.*, the telegraph), is essentially mental. Nothing, however, is more characteristic of mental phenomena than the oscillations between periods of depression, recovery, and exaltation.

[1] Cf. Sauerbeck's "Index Numbers" in the Journals of the Statistical Society. Taking 100 as the basis of the prices of 45 principal commodities averaged from 1867–1877, the aggregate index number gradually fell to below 60 in 1896, and, though it has risen a little since, in March, 1897, stood only at 61.9.

This is shown in an exaggerated form in nervous disorders. It may well happen that the fear and distrust excited by a panic fade away in two or three years and give place to a sense of security, which in turn engenders over-confidence and finally speculative mania. Of course some people will remain relatively cautious, and indeed the great mass of business may be conducted on sound principles, but it is sufficient to account for the phenomena if any considerable section of the financial world goes through these emotional stages. The sympathy of markets is well known, both in inflation and depression. The failure in recent years of the periodicity to assert itself in so marked a manner as before may be due to some great restraining influence, such as the continuous fall in prices, or the suppressed fear of the outbreak of a general war.

## CHAPTER XXII.

### THE RATE OF INTEREST AND THE RATE OF DISCOUNT.

§ 1. *Meaning of Interest.* Controversies as to the meaning and nature of interest are of very old standing, and recently have again occupied much attention.[1] In order to understand clearly the points in dispute, it is necessary to go back to fundamental conceptions in economics.[2]

Corresponding to the three great agents in production there are three great species of income, viz. Economic Rent arising from the gifts of Nature, Wages the return to Labour, and Profits the return to Capital. These three kinds of income to some extent overlap and present features of resemblance, but according to the plan of this work, the logical separation has always been kept in view.

Now interest from this standpoint is *prima facie* part of the gross return or income of capital, that is, part of gross profits. The other two parts of gross profits are wages of management, and insurance against risk. So far, then, it seems quite simple to separate interest logically from the other elements, but the real difficulty lies deeper. We see at once that if capital is to yield wages of superintendence, it must be employed, and even to continue, it must in most forms be constantly renewed, wholly or partially; that is to say, in most cases if not employed it will not provide even insurance against loss or deterioration. And in the same way it may be argued

[1] Cf. the works on Capital and Interest by Böhm-Bawerk.

[2] Cf. also Vol. I., Bk. II., Ch. XIII.

that capital cannot yield this other element of interest in the normal case unless it is employed. It would thus appear that interest itself is of the nature of wages and insurance, or it is a reward for the employment of the capital and an indemnity against the risk incurred (*periculum sortis*). On this view interest can only arise from employing capital productively, which again involves labour and risk.

The owner of any form of capital may, however, in one way reduce the labour and risk of employment to a minimum or even to zero. He may lend it to some one else to use productively, and the lender may take no share in the management, and may obtain ample security for future payment. Take, for example, a mortgage on land in its simplest form, and assume that the lender advances actually so much corn for seed. As security he may have not only the land but in early times the body of the borrower, and thus the risk may be practically *nil* whilst at the same time the lender takes no part in the management of the land. The debtor, in this case, however, hopes to make a surplus profit, and is, therefore, willing to pay for the use of the seed. Thus in this way we see that pure interest can be obtained by lending. The question, however, still remains: Can the owners of capital obtain pure interest without lending, or is loan interest the only form of pure interest?

The presumption is that if, in any case, the borrower can employ the capital so as to obtain, in addition to the other elements of profits, a sufficient sum to pay interest, the owner of the capital, by retaining and using his capital himself, can also obtain interest. Or the point may be put otherwise: Unless the owner can obtain the equivalent of interest he will lend it. If we take an extreme case and suppose that no one would give anything for a loan of capital, it would follow that the owner could not make more than is involved in the other two elements, and the interest would be *nil*, whilst if the owner were

obliged to pay something to another to keep his capital for him, the interest would be negative. As an example of negative interest, we may take the payments sometimes made in recent years, owing to agricultural depression, to farmers by land-owners simply that the land may be kept in cultivation, and the capital sunk in it be preserved.

It may happen, of course, that, either through intention or misfortune, the capital borrowed is not even continued or reproduced, but, on the contrary, is altogether consumed unproductively, as in the case of the farmer who borrows corn for seed, but is obliged to use it for food. Still, in this case, if the security is ample, — if the land or its owner be worth the capital and interest, — the capital will return to the lender with usury.

Thus the following statement may be now taken as the general definition of *loan* interest: Interest is the price paid for the use of a thing for a time; the thing, or its equivalent, being returned at the end of the time. The price may fall to zero, or may even fall below zero in the form of negative interest. In other words, a person may allow another the use of a thing *gratis*, or may pay so much to induce him to use the thing, the owner retaining the right of property in the thing or its equivalent.

It will be observed that in the case of loan interest the element of time enters into the definition, and interest is usually reckoned at a certain percentage per unit of time. Accordingly, some economists have considered the essence of interest to consist in the difference between the present and the future value of a thing, the ultimate reason being that the deferred is of less value than the immediate fruition of any utility.

As already explained in considering the growth of capital, the degree of the moral and intellectual appreciation of future, as compared with present needs, is one of the most important elements, and if a low estimate is set on the future, so much greater must be the inducement offered to make a man part with any possession for a

time. Similarly, also, to the borrower of a like temper, a future payment appears as if seen through the wrong end of the telescope. Again, there are instances in which the mere lapse of time is requisite in order that the utility, and with it the value, of a thing may increase as in the typical case of keeping wine. More generally we find a certain amount of time is necessary for the coöperation of the forces of nature, and, we may say, of the forces of the environment. A plantation may become more valuable both by the growth of the trees and by the growth of the community. In this case, however, the increase in value, so far as due to natural causes, is (on the view here taken) economic rent, and so far as due to social causes is an exceptional profit obtained for superior foresight or good fortune.

Perhaps the best example of interest being paid purely for the lapse of time is found in the "time bargains" of the Stock Exchange. A speculator in stocks or shares of any kind may sell what he has not got for future delivery, hoping to fulfil his contract by purchasing at a lower price. If, however, the price does not fall as anticipated, or even rises, he must pay what is called a "backwardation" for deferring delivery. In the case of a "corner," in which more stock has been sold than is available either for purchase or borrowing, the payment of a penalty of this kind is inevitable, and may rise to a great height. If we seek to bring this example under the definition of loan interest, we must say that the interest is paid for the use of a thing that does not exist, or exists only on paper. The opposite case is when a person buys stock of which he cannot or does not wish to take delivery and pay for at the time of settling, and pays a penalty for deferred payment called a "contango." In this case if the payment is brought under interest, we must say that the interest is paid for the use of "money" that does not exist, or exists only on paper. We must remember, however, that if the buyer had borrowed "money" from his banker, and given the

stock as security, — in which case there would be no question that the payment was loan interest, — the "money" is probably only a form of credit.

When we pass from loan interest to interest considered as an element of profits, the time factor does not seem so essential. A merchant, for example, in his office may, at the same moment, by telegraph, buy goods of one person, and sell them to another at a profit. Similarly, he may simultaneously cover the export of cloth by the import of produce, and make a profit on the transaction. This profit is, no doubt, of the nature of a commission, but if interest is considered an essential part of profit, in this case it is not due to a lapse of time. Again, the mere change of place may add to the value of a thing; the difference is profit, and that part of it set down as interest does not depend on time.

If, then, we attempt to frame a general definition of interest that shall include all cases, and also correspond to the derivation and historical usage of the term, we may say that interest is part of the difference between the buying (or retaining) and the selling (or disposing) price of a thing — this difference being due to various causes in different cases. The other parts are the other elements in gross profits. On this view a manufacturer buys the use of labour and materials at certain prices, and sells at a higher aggregate; but that he may be able to buy, he must have "means," and the part of his profit assignable to the possession of his "means" is interest.

A trader buys finished goods or produce, and makes a profit by mere transference, part of this profit again being interest on his "means."

The case of loan interest may readily be brought under this more general definition, just as any contract of letting or hiring may be spoken of in terms of a contract of sale. "You cannot, indeed," says Maine,[1] "without forc-

[1] *Vill. Comm.*, p. 190.

ing language, speak of the contract of sale in terms of the contract of letting and hiring; but the converse is easy, and there is no incorrectness in speaking of the letting and hiring of land as a sale for a period of time with the price spread over that period." And what is true of land is true of money, or of victuals, or of anything that can be lent upon "usury."

We are most familiar with "interest" paid for the use of "money," but from the earliest times, as indicated in the Mosaic command, we have usury or interest on all kinds of "things." We may conveniently summarise all those other "things" (*i.e.* apart from money) under the term "capital," and in the first place we may consider the *interest upon loanable capital* (money being simply the intermediary).

We shall find, moreover, that there are peculiar causes affecting loans of money as such, that is to say, for monetary purposes, *e.g.*, the extinction of monetary obligations.

Accordingly most economists, in recent times, have made a fundamental distinction between interest on capital and interest on "money." The former we may call loan-interest (or, more briefly, interest) in the general sense of the term, and the latter, from one of its most common forms, we may call discount. We may notice further that interest on capital (in the sense explained) is usually for long periods, whilst discount is relatively for short periods. The distinction may be made clear by an illustration. Suppose that in a time of prosperity, a manufacturer wishes to extend his business, and for the purpose borrows capital by issuing debentures. Those who take up the debentures will, in the first place, advance some kind of "money," but the money is only the medium for the purchase of machinery, the erection of buildings, and the like. On analysis what is really lent is capital as distinct from money, and the interest on the debentures is interest on capital.

On the other hand, suppose that on the eve of a com-

mercial crisis a manufacturer fears that he may be unable to meet his pecuniary engagements. In this case he will endeavour to increase his balance at his banker's by discounting his bills. But so far from wishing to extend his business by increasing the capital employed in it at such a time, he will probably rather think of contracting his business, as he may be suspicious of the solvency of his customers. At any rate, what he needs is "money" in some form that will suffice to extinguish price monetary obligations.

§ 2. *Causes affecting the Rate of Interest on Loanable Capital.* We may now investigate the causes that govern the rate of interest on *loanable* capital (in the sense just explained), when the money is lent and borrowed simply as a means, and the loan is for relatively long periods.

Interest being the price paid for the use of a thing, like all other prices depends upon the supply and demand. The supply of loanable capital varies, *ceteris paribus*, with the general supply of capital. This, again, depends on the causes affecting the accumulation or growth of capital which have been enumerated in the first book.

We must next consider the causes which induce people to lend their capital rather than employ it themselves or keep it idle. The causes which in this way determine what proportion of the general supply of capital is loanable are of various kinds. It may happen that the owners of capital cannot employ it themselves owing to the lack of industrial training or opportunity. Thus a large part of capital which is inherited must be invested or lent to others. Again, some people cannot employ all their savings in their own business, and their surplus profits are converted into loanable capital. The amount of the loanable capital in a country will depend largely on facilities for investment. For a long period money was only lent on land, and the narrowness of the field for investment checked the supply. Security is obviously

of the greatest importance ; the slightest difference in security at once affects the supply. This is best seen in particular cases. First-class securities even with very low rates of interest are often subscribed for many times over, even whilst inferior companies cannot obtain the capital they require at any rate of interest. Apart from differences in security in various species of investments, the general security in different times and places is affected by the conditions of government and civilisation.

In one sense, of course, it may be said that we ought not to consider security as affecting pure interest at all ; in other words, that taking loan interest pure and simple, the security ought to be considered perfect, any deficiency being made good by insurance. This is, no doubt, logically the case, but at the same time it is practically convenient in a general survey to look upon security as one of the causes affecting the willingness of people to lend capital.

The supply depends further on the mobility of capital in the general sense of the term. If most of the capital in a country has been sunk or specialised, there is so far a relatively small amount of loanable capital for new purposes. We may next take into account the difference between gross profits and pure interest. If profits are relatively high, there is an inducement for people to employ their capital themselves ; but as profits approach interest, and the wages of superintendence fall, the owners are more willing to lend. A good example is furnished by Holland. In the sixteenth and seventeenth centuries high profits were obtained in the carrying trade, and relatively little capital was lent ; but as profits fell, through the policy and competition of England, Holland gradually became the great lending state of Europe in the eighteenth century. At the present time the low rate of profits in England, compared with the relatively high rate of interest obtainable abroad, has led to an enormous increase in loans to foreign countries. Finally, we have to

take into account the state of law and public opinion. So far as the laws against usury and the moral condemnation of it were operative, they restricted the supply of loanable capital. Thus, incidentally, it may be remarked, in many cases they defeated their own object, a higher rate being charged to necessitous borrowers.

The demand for loanable capital may be considered from two points of view. In the first place, the demand may be on the part of unproductive consumers. Amongst these the most important are the governments of the world, both national and municipal. The national debts of Europe alone have a par value of over £7000 million sterling, and have been mainly incurred for war and other unproductive uses. Municipal debts are supposed to be largely for productive purposes, and there is often a return in utility when there is no yield in the shape of revenue and no adequate replacement of capital expenditure. Still, viewed economically, municipalities must often be regarded as unproductive consumers, who anticipate their revenues. The demands of individuals, for unproductive purposes, have in the course of time become of less and less importance. At first, a large part of the loans effected were in cases of hard necessity — to pay taxes, to obtain ransom, to evade bankruptcy and imprisonment, or to escape from death in time of famine. Thus, the moral condemnation of usury by the Church was justified as an attempt to regulate a monopoly liable to great abuse. Under present conditions, the unproductive borrower is in general simply foolish or extravagant, and is not supposed to require particular protection by the state, except in the case of infancy or incompetency.[1]

In modern times the demand for loanable capital has been more and more for productive purposes or with the view of making an extra profit. The increasing tendency to use borrowed capital is shown by the increase in the

[1] Recent revelations in England show that incompetency is more common than is generally supposed possible.

discount of bills and by the creation of companies. To enumerate the various elements that constitute the effective demand for loanable capital to assist in production would require a survey of the whole field of industry.

The discount of bills just alluded to makes the natural transition between the rate of interest and the rate of discount.

§ 3. *Causes affecting the Rate of Discount.* I pass on, then, to consider the rate of interest for "money" as such, or, as it may be called (from one prominent type, as already explained), the rate of discount. The need for a special examination is at once seen by a reference to history. For some fifty years, for example, the yield to consols on the purchase price oscillated about 3 per cent (the difference between the maximum and minimum not being 1 per cent), whilst the Bank of England rate for advances varied between 10 per cent and 2 per cent, although the advances were only made on apparently perfect security to borrowers of the highest standing. More broadly, the yield to first-class investments of capital remained practically steady, the changes in the normal yield being comparatively slow, and in the market yield not extreme or violent, whilst discount rates, *i.e.* for "money" as such, were sometimes subject to violent and extreme oscillations and at other times remained above or below the general rate of interest for a considerable period.

It is necessary, then, to examine separately the causes of variations in the rate of discount. It is easy to say that this rate depends on the demand and supply of loanable "money," but here, as throughout this part of the subject, the difficulty arises from the elasticity or variableness of the term "money" in modern times, not only for purposes of verbal definition, but for practical purposes.

Consider first the supply of loanable "money" — what is it? After the examination already given, we may say it consists of a relatively small amount of actual coin, and a relatively large superstructure of "representative"

money or different forms of credit which for various purposes are accepted as "money."

Similarly the demand for money is equally variable. It may sometimes be satisfied by various forms of representative money or credit, and sometimes only by the standard metal.

Thus, whether we consider it from the side of demand or that of supply, "money" is a variable term; it may mean gold in the Bank of England or a cash credit in a branch bank in a Scottish village.

Demand and supply being in this case so obviously reciprocal, — both being affected by the same causes acting in different ways, — the general conditions affecting both must be taken together.

It follows at once, from the nature of the money of a modern money market, that the most important cause affecting the rate of discount is the state of credit. Any sudden contraction of credit from any cause diminishes or contracts the available supply of loanable money. And we observe also it increases the demand; thus the banks in a crisis have less to offer, and their customers demand more.

Next to the state of credit we may place the amount of the banking reserves — the real foundation of the credit system.

It has already been explained, with special reference to the Bank of England, that if the reserve falls below a certain point (variable according to circumstances), a panic or crisis is inevitable.

It is not, however, the absolute amount of reserve, but rather the proportion to liabilities that is of importance. Thus, if we take different decennial periods in the case of the Bank of England, we find the rate may be lower with a lower absolute reserve, but then the liabilities are less.[1]

The amount of the banking reserve itself depends on

[1] Cf. Palgrave's *Bank Rates of England, France, and Germany.*

various causes, some of which directly, as well as thus indirectly, affect the rate of discount. Sometimes also the reserve may vary without any effect at all. This happens when the cause of the withdrawal is well known and a reverse flow is anticipated, as, for example, in the payments of dividends to holders of consols or in the periodic drains to meet payments at definite times. To take a particular case, gold is regularly brought from London to Scotland at the May and November "terms" to meet the extra issues of notes, according to the Act of 1845, but this transfer of gold being known to be only temporary has in general little effect on the bank rate.

The amount of the reserve may be affected by the activity or the reverse of home trade. A revival of trade may lead to an internal drain for wages and retail transactions. Thus here also the same cause diminishes the supply (so far) and also increases the demand.

The case of foreign trade is of still greater importance, especially in a country such as England. Any excess of imports over exports (not accounted for by other elements of indebtedness) may create an unfavourable balance of trade. Although in one sense an unfavourable balance to importers is equally favourable to exporters, and, therefore, from the point of view of national gain may be so far disregarded in another sense, an unfavourable balance may mean such a foreign drain as to lead to a financial crisis.[1]

Finally, it may be observed in the case of the London money market that the market or outside rate may differ considerably from the Bank rate in ordinary times. The influence of the Bank of England generally only becomes predominant in times of pressure. The official minimum of the Bank of England may remain at 2 per cent whilst other banks[2] may charge only fractional rates. The directors of the Bank of England have to look to the

[1] Cf. Ch. XXVI.

[2] Including, it is said, the Bank's own country branches.

sufficiency of their reserve and to take steps to protect their gold whilst other banks look simply to the conditions of demand and supply from day to day. Still, for the purpose of giving historical illustration to theory, just as we may take the yield to consols as a fair measure of the pure rate of interest (though owing to special causes generally somewhat less), so also we may take the official rate of the Bank of England as a fair measure of the rate of loanable money in London (though generally somewhat higher owing to special causes). With this example principally in view we may now consider the causes of differences between the rate of interest (on loanable capital) and the rate of discount (on loanable money).

§ 4. *On Differences between the Rate of Interest and the Rate of Discount.* In 1866 — a year of crisis — the bank rate was for some time above 10 per cent, and in 1867 for some time only 2 per cent — the market rates being still more extreme. During the whole of this period the rate of interest on first-class securities oscillated about 4 per cent. Consider first the case in which interest is higher than discount. Why do banks go on lending "money" at 2 per cent or less when they could obtain 4 per cent on perfect security? In the first place, a banker can only lock up in investments a certain proportion of his resources. An increase in the demand for "money" might at any time make it necessary to sell securities at such a fall in price (including stamps, brokerage, etc.) as to more than neutralise the extra interest obtained. This is true even of the highest class of securities (*e.g.*, consols), and still more true of less marketable shares. Secondly, the relatively low rate of discount that prevails after a commercial crisis has been effectually liquidated is partly due to the falling off in the demand for "money," whilst the demand for first-class investments is relatively steady over a long period.

The case when discount is higher than interest may be explained in a similar way. The supply of money as

such is relatively small, whilst, owing to the contraction of credit and the necessity of meeting engagements in cash, the demand is relatively great.

It must be remembered also that dealing in money is a business requiring special training and special establishments. The ordinary holder of consols certainly cannot take advantage of the rise of the rate of discount in a panic to sell his stock and take to discounting bills or making other loans with the proceeds.

§ 5. *On the Reciprocal Action of the Two Rates.* Although, as just shown, the movements in the rate of interest and the rate of discount are often independent or move in different directions, there is at the same time, especially in normal conditions, a reciprocal action between the two. Suppose that the conditions of business are such that the rate of discount will probably remain low for a considerable time, the banks are induced to increase their holdings in first-class securities. They not only have a better yield in interest, but also the chance of a rise in prices. A good illustration is furnished by the great rise in consols and the like during the last three years. The rise in price of any security bearing a fixed interest implies, of course, a lower yield on the purchase money. Further, the interest derived from similar securities tends to equality, and a rise in any group sympathetically affects other groups. Thus, a fall in the rate of discount by raising the price of securities (and thus diminishing their yield) tends to cause a fall in the rate of interest generally. In the same way it is easy to show that a rise in the rate of discount, by diminishing bankers' investments, may depress the price of securities, and thus so far raise the yield on the purchase price, and indirectly the general rate of interest. Thus, to take a special case, the shipment of gold from England on a large scale may depress the price of consols and railway debentures, although no one supposes that the credit of the government or of the railways is endangered. The popular idea that

consols rise and fall with the credit or stability of the government is often the reverse of the truth. A state of insecurity may check enterprise, and the low rate of discount may lead to a demand for consols and a rise in their price.

§ 6. *On the Stability of the Rate of Interest over relatively Long Periods.* A closely allied question to that discussed in the last section is this: Why are changes in the normal rate of interest in general comparatively slow, and the oscillations about the normal in general moderate?

In the first place, all investments that offer equal security, are equally marketable and transferable, and generally possess equal advantages, must give approximately the same yield. The *quasi*-permanent differences in the yield to various kinds of shares correspond to differences of advantage — the better the security and the negotiability, so much less is the yield. Now the total mass of investments quoted on the London Stock Exchange, to take an important example, is very large, and any change in the rate of interest must affect all equally — after making proper allowance for the *quasi*-permanent differential circumstances. Compared with the total mass of old securities, the additional annual savings available for such investments are relatively small, and to some extent, at any rate, they will be used in the creation of new securities. The same principle is involved as in the exchange value of gold relatively to commodities — the annual supplies of gold relatively to the total mass are small, and similarly the changes in the work to be done by the gold are also relatively small.

At the same time, when we consider comparatively long periods there may be considerable changes in the rate of interest (just as there are also in the exchange value of gold). If, to put the argument in the most general form, capital increases more rapidly than labour, and especially if the bargain-making power of labour also increases, a

larger proportion of the national income will go to labour, and a smaller proportion to capital. And of this smaller proportion of profits again less will be pure interest, and more wages of management. On the other hand, any great destruction of capital or check to accumulation such as would be involved in a great war tends to raise the rate of interest.

Finally, it may be observed that changes in the rate of interest are really greater than they seem to be at first sight. A fall in pure interest from 4 to 3 per cent would not appear to make much difference in the cost of production of any representative commodity; and especially if accompanied by a rise in wages, the effect might be more than neutralised.

But such a fall in the rate of interest means to investors a diminution of their incomes by one quarter, and if they seek to make the same income, they have to invest still more capital. Insurance companies with a fall in the rate of interest must charge more for annuities, and they are also unable to give so much by way of "bonus" to the policy-holders. It is interesting to observe that the recent fall in the rate of interest has increased the amount of annuities, which shows that an increasing number of people have been obliged to keep up their income by the gradual consumption of their capital. This same fall has also enabled governments and municipalities to convert their debts so as to reduce the annual charge. Thus the fall in the rate of interest tends to lessen the burden of taxation, or helps to meet the increasing demands for public expenditure. Further, the fall in the rate of interest increases the number of those who must work and diminishes the "unoccupied" class, and this increase of work involves an increase in the real income of the people either in services or commodities or both.

§ 7. *The Connection between the Exchange Value of Money and the Rate of Interest.* The phrase "value of money," as already observed, in the language of the

market-place refers to the rate of interest to be obtained for the use of money, whilst in the strict economic sense the value of money means its purchasing power or exchange value.

The employment of the same phrase for two totally different things is liable to cause confusion and to suggest a connection that does not really exist. A reference to history shows at once that there is no necessary connection between a high or low level of prices and a high or low rate of interest. In the mediæval period, for example, the rate of interest was very high whilst the level of prices was very low compared with the nineteenth century. Thus comparing these distant periods the rate of interest moved downwards whilst general prices moved upwards. In the last quarter of a century, however, the rate of interest and the level of general prices have both moved downwards. And on theoretical grounds it is obvious that once a range of prices has been definitely established the rate of interest is governed by independent causes. The demand and supply of loanable capital do not depend upon the unit of measurement, and even the demand and supply of loanable money do not depend on its purchasing power. If £100 will purchase twice as much as before, so also will the £3 of interest, and the lender and the borrower will so far as the monetary measure is concerned be in precisely the same position as if under the old level the one wished to lend, and the other to borrow £200 with £6 of interest, the rate per cent being the same. Again, the value of money (in the sense of exchange value) will be so adjusted that the supply is just sufficient to satisfy the demand. With a low level of prices a small amount of gold will do the work of circulation as effectively as a large amount with a high level. If the pound sterling were reduced to the twentieth part of its weight, and the same name retained, after the adjustment of prices was completed, the only difference would be that everything bearing a

price that used to be worth so many shillings would be worth so many pounds. If other things remained the same, — if generally relative values of all kinds were undisturbed, — the relative values of labour and capital and also of the use of borrowed capital would remain undisturbed.

But although this general position with the assumptions made is theoretically sound, it is easy to show that the transition from one level of prices to another may have an effect on the rate of interest.

In the example just taken the real burden of all fixed charges would be exactly one-twentieth of what it was before the depreciation of the standard. The holder of a nominal hundred pounds of consols would still receive (say) £ 3 of interest, but his command over purchasable things would, if reckoned on the old level, be only 3*s*., and similarly of the cost to the taxpayer. And generally, so far as all old debts with fixed charges are concerned, the proportion of the national income absorbed by them would be so much less, and as a consequence there would be so much more available for fresh investment. In other words, the extinction of so much debt would leave more to be lent, and if the demand did not increase proportionately, the rate of interest must fall.

In general, however, any violent depreciation of the standard of value would cause a shock to credit and confidence, and thus in a twofold manner tend to raise the rate of interest.

The general sense of insecurity would of itself raise the rate whilst the destruction of credit would decrease the supply of loanable capital and increase the immediate demand. Thus excessive issues of inconvertible paper, although in one way they increase the supply of "money," may indirectly, by affecting credit on the whole, raise not only the rate of discount, but also the rate of interest generally.

If, however, the depreciation in the standard is gradual,

in other words, if there is a gradual rise in prices, as, for example, through great discoveries of the precious metals, there would be no such shock to confidence. On the other hand, the new supplies might not only increase the supplies of loanable "money" directly, but also increase representative money in the form of credit. Thus the rate of discount might fall, and sympathetically the rate of interest. At the same time the rise in prices would eventually give a stimulus to trade and encourage speculation and enterprise. New companies would be created, and business of all kinds would be extended by borrowed capital, the general result being a rise in the rate of interest. If the speculation were carried to excess, a collapse would ensue in the shape of a commercial crisis.

A general fall in prices would have the opposite effects on the rate of interest. Falling prices tend to check enterprise and speculation and contract the demand for borrowed capital. This contraction of the demand may be more than sufficient to neutralise the diminution in the supply of money, and on balance the rate of interest may fall. This has been abundantly illustrated in recent years. The appreciation of gold — or fall in general prices measured as gold — has been accompanied by a fall in the rate of interest and an apparent glut of loanable money.

As regards the ulterior effects it may be observed that with a fall in prices the real yield to all investments with fixed money interest increases. So far, then, a larger proportion of the real income of the country is given to pure interest as compared with wages and profits of undertaking. Similarly, the burden of old debts — including governmental obligations — so far increases; more taxation is required to raise a certain amount of money revenue, and more real wealth must be parted with to extinguish an old debt. On the other hand, what the debtors lose, the creditors gain, and even a government ought to be able to effect some economies in expenditure.

Again, it may be difficult to adjust money wages to the fall in prices, and the real loss may so far fall on profits. The loss in profits in its turn may lead to economies and the endeavour to extend business in new directions. On the other hand, the rise in the real cost of labour may stimulate the use of machinery, and on the whole the earnings of labour may eventually fall.

In conclusion, attention may again be called to the fundamental principle that relative prices must be adjusted to relative values. Appreciation and depreciation, alike, during the process of transition must cause adventitious losses and gains which do not correspond to any real economic deserts. On the one side, some people may become bankrupt in spite of every effort and precaution whilst others reap where they have not sown. Thus even although to some extent in monetary disturbances one man's loss is another man's gain, the general result is economically injurious, because real rewards are not proportioned to real efforts and sacrifices. There can be no question that, on the whole, stability in the standard of value is preferable either to depreciation or appreciation. It is true that if time is allowed in either case a readjustment of contracts that can be renewed will be made on the new basis, but so long as any change is in progress the readjustment is uncertain, and before one change is completed another may begin.

# CHAPTER XXIII.

## THE HISTORICAL DEVELOPMENT OF FOREIGN TRADE.

§ 1. *Mediæval Ideas — The Foreigner as a Natural Enemy.* The separate treatment of foreign trade may be justified by two sets of reasons: the first, historical and practical; the second, theoretical. On an appeal to history we find that foreign trade has generally been sharply differentiated from domestic or home trade, and has been considered alike by governments, by the popular opinions which mould governments, and by the thinkers who mould popular opinions, as requiring special regulations. Even at the present time there is only one great commercial country, viz. the United Kingdom, which professes to make no difference between the regulation of home and foreign trade; and this solitary exponent is unable to impose its policy on its own colonies and unable also to induce other nations to follow its example in spite of the enormous increase of its commerce under the new *régime*. And even in the United Kingdom itself the increase of foreign competition is regarded with jealousy,[1] and the traditional policy is still persevered in of bringing as much new territory as possible under British influence, and of keeping undisputed command of the sea. Other nations still apply to their foreign trade the principles and ideas which were applied in England up to the middle of the present century. It would be impossible to compress the history of British commerce into a few pages, but it

[1] As I write, the House of Commons has passed the second reading of a Bill to exclude the Foreign Prison-made Goods.

may be useful in the first place to recall with illustrations the mediæval regulative ideas of commercial policy.

The popular idea of a foreigner was that he was a natural enemy, or at the best a highly suspicious character.[1] This idea, carried to its logical conclusion (as until recently in China), excluded foreigners from the country altogether, or if they gained admittance, refused them the protection of the law and placed them under surveillance like criminals. Thus under the Saxon and early Norman kings foreign merchants were only allowed to come into the country for the four great fairs, and with the proviso that they were not to stay beyond forty days.[2] At any other time the foreign trader must obtain a license from the king. These licenses were first granted to individuals, and later on to citizens of certain towns, and ultimately (in general by reciprocal commercial treaties) to natives of certain countries. It is noteworthy that the king, the nobles, and the Church were inclined to favour the foreign merchant, whilst the towns, especially London, were his bitter opponents. Thus the famous Statute of Merchants (1303)[3] was passed in opposition to London and the towns, at the instance of Edward I., who in reply to a petition said plainly that the foreign merchants were useful to the king, to the nobles, and to the country at large.

Edward II. — a weak monarch — again imposed the restrictions on stay, dwelling, etc., which had been annulled by this statute, but he relaxed them in favour of the Lombards, with riots as a consequence in the cities. The University of Oxford petitioned in favour of the foreign

[1] *Cf.* the well-known change in the meaning of *hostis* from stranger to enemy.

[2] The forty days' limit survived for a long period. In London, in 1250, a foreigner must stay with a citizen, he was not allowed to sell by retail, or to do any work done by the citizens, or to make a market, or to stay more than forty days. — *Liber Albus*, p. 95.

[3] *Cf.* Stubbs, *Const. Hist.*, Vol. II., pp. 191–194.

merchants. Edward III., in opposition to the towns, granted further privileges to the foreign merchants, and towards the end of his reign free trade attained the greatest extension which it reached in the mediæval period. Merchants were no longer held responsible for the crimes and debts of their countrymen, and the principle of personal liability was recognised (although not fully observed even in the reign of Henry VIII.). As the towns, however, grew in power and the strength of the monarchy declined, the policy of hostility to foreign traders was resumed, and culminated in 1439, when it was enacted, *inter alia*, that foreigners must not sell to foreigners under pain of confiscation of the goods; they must reside with official hosts (a combination of innkeeper, inspector, and detective), under whose supervision all dealings must be made; all goods must be sold within eight months, and the money received be spent in English goods; the host must render an account twice a year to the Exchequer; if the host neglects his duty, he is heavily fined, and if the foreigner disregards the rules, he is imprisoned; if the authorities do not appoint sufficient hosts, they are fined, and any one refusing to serve is also fined.[1]

The growth of commerce gradually rendered it impossible to enforce this vexatious and inquisitorial personal supervision of foreigners. Successive kings granted exemption both to individuals and to companies, — for a consideration, — and numbers of foreigners had become naturalised in the Tudor period.[2]

Eventually England, following the early example of Holland, became the natural asylum for political and religious refugees from other countries, and part of its present productive power must be assigned to the successive admixtures of foreign ideas and foreign workers.

[1] *Cf.* Schanz, *op. cit.*, Vol. I., p. 409.

[2] *Cf.* the petition of the Londoners against foreigners, Schanz, Vol. I., p. 418.

§ 2. *Mediæval Protection of Native against Foreign Goods.* The national prejudice against foreign merchants and artificers was turned also against foreign goods if in any way the importation was considered injurious to native industry. We find in the mediæval period all the elements of what is now known as the protectionist system. The best illustration, perhaps, is furnished by the treatment of wool and cloth respectively. From the earliest times England was noted for its wool, and there was a good deal of domestic weaving, but the first impulse to the manufacture of cloth was given by the Flemings who settled at Norwich under William I. Other colonies followed, and for centuries most improvements in cloth came from the Netherlands. At first only coarse cloth was made at home, and wool was exported to the Netherlands and fine cloth imported in return. With the growth of the English towns the manufacture improved. The first attempt at protection was made by Simon de Montfort during the Barons' War (1264). He forbade any cloth to be worn not of English make and was the first statesman to maintain that England could live on her own resources and ought to be *independent* of foreigners.

Under Edward III. the idea began to prevail that the country should keep its wool for itself — it being thought superior to foreign wool. In 1338 it was forbidden to export sheep. About the same time no foreign cloth was to be worn without a license from the king. Edward III. also imported Flemings to improve the woollen manufacture.[1] The manufacture was also encouraged by imposing heavy export duties on wool, with the view of making it cheaper at home and dearer abroad. This policy led to retaliation on the part of Flanders, and there was a suc-

[1] That the importation was unpopular, is shown by Chaucer's reference:

> "Certes he, Jack Straw, and his meynee
> He made never shoutes half so shrill
> When that they wolden any Fleming kill."
>
> — *The Nonnes Prestes Tale*, 573.

cession of tariff struggles — retaliation and reciprocity alternating.

With the growth of the cloth trade the policy of protection was intensified. In a poem of the time of Edward IV.[1] the writer maintains that all the world need English wool and cloth and that it is desirable to export only the worst wool and the finest cloth. The leading ideas — which are to a great extent carried out — are to make the raw material cheap at home and dear abroad, to make only sufficient coarse cloth for home use and to make fine cloth for export, because it was that way most skilled labour was employed. By the end of the mediæval period curiously savage laws were made against the exporters of sheep, wool, or yarn.[2]

It is worth pointing out that in the authoritative work on the subject, viz. John Smith's *Memoirs of Wool*,[3] it is shown that the idea of English sheep and wool being superior to foreign kinds is the popular delusion. A similar policy as regards the raw materials and manufactures was adopted in other cases, *e.g.*, horn, hides, silk. In the reign of Henry VII. the import of manufactured silk was forbidden, and Bacon observes in his *Life*: "This law pointed out a true principle that when foreign materials are but superfluities foreign manufactures should be prohibited. For that will either banish the superfluity or gain the manufacture." Henry VIII. attempted to encourage English bookmaking by prohibiting the importation of books printed or bound abroad.

Horses were treated by the government on the same principles as sheep. Thus in the reign of Henry VII. only those horses could be exported which were below 6*s*. 8*d*. in value (the average price being £ 2 to £ 5), and the law was enforced by allowing any one at the ports to have the right of buying for 7*s*. a horse that was about to be

[1] *Political Songs*, Vol. II., p. 283.
[2] Cf. *Wealth of Nations*, Bk. IV., Ch. VIII.
[3] Vol. I., p. 31.

exported. Henry VIII. gave great attention to improving the breed of horses and passed a law providing, *inter alia*, for killing all weakly foals. The policy as regards horses may also be partly ascribed to the idea of *defence*, as they were of great importance in war.

Curious illustrations of the encouragement of industries that are useful for defence are found in the legislation regarding bows and arrows. Thus, arrows were made of aspen wood, and it was forbidden to use that wood for other purposes, so as to make arrows cheap. Bow-staves were for the most part imported, and foreign merchants (especially Venetians) were compelled to bring over certain quantities with their other goods. When firearms came into general use, it was forbidden to export metals, and Henry VIII. imported several gun-makers.

The germ of the Navigation Acts may be traced to Richard II., an attempt being made in 1381 to prevent the importation of foreign goods by Englishmen except in English ships.

Finally, it may be observed that the mediæval legislator gave special attention to providing his country with a plentiful supply of the precious metals, importations being encouraged by various regulations and devices, and exportation being discouraged or prohibited. The whole machinery, on analogy with the better-known Mercantile System, has been styled [1] the Balance of Bargain System. The State through its official hosts saw to it that the foreigner in every bargain "employed" [2] the money he received for his imports in English goods. Through the agency of the "staple" it was provided that the principal English exports to foreign states should be paid for, at any rate partially, with the precious metals.

It does not, however, appear to be just criticism of this system to deal with it after the manner of Adam Smith with the Mercantilists. Money was recognised as one of

[1] By Richard Jones.

[2] The Statutes of Employment refer to "employing" money.

the most important instruments of exchange, and thus of production. Mediæval progress in every part was associated with the adoption and extension of a money economy. Any scarcity of money at once checked development. A plentiful supply of money in the Middle Ages was as necessary for the national welfare as plentiful banking reserves are at present. The regulations which aimed at the prevention of the circulation of foreign money and provided for the immediate recoinage, were justifiable not merely for the lawful seigniorage claimed, but also for the preservation of the national coinage.

§ 3. *Mediæval Encouragement of Active Foreign Trade.* The mediæval trade of England was for a long time principally passive; but after the middle of the fourteenth century it became largely active. In 1350 there were in England only 169 rich merchants engaged in maritime trade, and in 1550 there were over 3500. Even in the fourteenth century there were individuals of great enterprise and daring, whose names have become famous in history, and trade was carried on, not only with the Netherlands, but with Spain, Portugal, Italy, and the East, and even of Ireland it is said, "men practised thither from Bristol with needle and stone."[1]

It was probably still more true in the Middle Ages than at present that trade follows the flag. For a long time the vessels of private persons with their crews were liable to be used for the king's service. Richard I. built a few warships for the crusades — the origin of the permanent navy. England, even before this, had begun to claim sovereign rights over the Channel, and King John (1201) ordered that every foreign vessel on meeting the English admiral should on demand lower its sails. Edward I. (1272–1307) instituted the department of the Admiralty. Edward III. embossed his golden noble with a ship and sword as emblems of his claim to the sovereignty of the

[1] *Political Songs*, Vol. I., p. 191.

sea. It was a common complaint, however, in his reign, that he pressed very heavily on the merchant ships for his wars, compelling the owners to put them in order and maintain the crews, and further, that he took the best captains and sailors, and especially, after the plague, would not pay them enough wages, so that they sought other employment. The wish of Chaucer's merchant expresses the popular idea that the king should guard the seas: —

> "He wolde the sea were keped for anything
> Betwixt Middleborough and Orewelle."

The Navigation Acts of Richard II. have already been noticed. Henry V. gave great attention to his fleet and tried to extend commerce by treaties of commerce. In this reign was written the "Libell of English Policy," the object being to show that England ought to keep the narrow seas, and thus control all the commerce of the world. Henry VII. renewed the Navigation Acts and built as many warships as his miserly spirit allowed, but he compelled the merchants to take them as escorts and to pay for them. On the other hand, he gave very few licenses to foreigners (being praised therefor by Bacon), whilst Henry VIII. gave many licenses, until after a protest by the Commons they were withdrawn.

On the whole, there can be no question that the origin of English commercial and naval supremacy must be traced to the mediæval period.

§ 4. *Mediæval Associations for Foreign Trade.* It has been observed that there were famous merchants before Whittington, but the peculiarity of the mediæval period as regards foreign trade was the tendency to association — just as in domestic trade the guilds overruled the individual. A brief reference may be made to some of the principal forms of association. The best known is the *Staple.* The leading idea was that all or most of the important exports must be sent to particular places abroad and sold under the authorities of the staple. The tradi-

tional date of origin is 1248, and in the reign of Edward I. (1272–1307) the system was well developed. The staple began through the action of the government (not through the merchants), and was often opposed and occasionally suspended as being contrary to Magna Charta as allowing taxation without the consent of Parliament. The staple was a powerful political instrument. It conferred a great favour on the town and country selected, and the removal was a sharp method of retaliation. The officers of the staple collected the duties on exports (especially wool), and the merchants of the staple had great interest in preventing smuggling, as that reduced their prices. The staplers often acted as bankers to the king, advancing loans, and, as pointed out already, they were also used to bring coin into the country. The staple was essentially a creation of the executive for financial purposes, and thus in itself was incapable of extending English trade and in some respects was restrictive. It was not even national; that is to say, the privileges were generally given to foreign towns. When attempts were made to establish it in England, only foreigners were allowed to export. When finally established in Calais (about 1450), foreigners could become members, though in the end the native element was superior. The protection given to English merchants was indirect. The mayor and constables of the staple administered justice according to the "law merchant." They also appointed brokers for sales, regulated the storing of goods, and fixed prices (minimum), and made certain charges for the expenses of the staple. The staple in this way formed a constituted authority and afforded a model to other associations of merchants.

The Merchant Adventurers formed the most famous mediæval company for the real extension of commerce and enterprise. At first the organisation was so loose that all non-staplers might be called merchant adventurers, a further specification being afforded by the name of the country to which they traded (*e.g.*, Iceland) or of

the produce in which they dealt (*e.g.*, the fishmongers); but as the chief business was with the Netherlands, the name came to be confined to the company which traded thither, and from 1500 this was the official name. This company was formed some time in the thirteenth century, when the Duke of Brabant gave to English merchants the privilege of electing a consul and of appearing in the law courts. At first the mayor of the staple was the consul, but later there was a keen opposition and rivalry between the two bodies — the merchants being interested in the export of cloth, and the staplers in that of wool. In process of time the organisation of the company became more definite and the membership exclusive. The entrance fees, at first imposed for the expenses of this consulate, were raised so as to be prohibitive except to rich merchants. Accordingly petitions were made (about 1491) for the restoration of freedom of trade to the Netherlands, and it was maintained that the company ruined the cloth trade (through having a buyer's monopoly) and sold the goods from the Netherlands at ruinously high prices (through having a seller's monopoly). The only effect of this agitation was to reduce the entrance fees and thus render the trade less exclusive, but at the same time greater privileges were granted and the governor and assistants were empowered to make any regulations for the trade not contrary to the laws of the realm. Thus they determined what fairs and markets should be visited, — a powerful instrument of retaliation, — and they kept up prices by limiting exports from the Netherlands. With the growth of industry and wealth the mercantile classes obtained the predominance in political power. The baronage had been broken by civil war, the Church by the reformation, the yeomanry by enclosures, whilst the discovery of the New World, and the rise in prices at first through debasement and later through the increase of the supplies of silver, had increased the power of the merchants. In the reign of

Elizabeth an incorporation was made of all the merchant adventurers of England to the number of 3500, but soon after the Company began to ossify and new Companies were formed with the exclusive privilege of trading to particular countries, *e.g.*, Russia, Morocco, etc.

These Chartered Companies played such a prominent part in the development of British trade and of the British Empire, especially during the seventeenth and eighteenth centuries, and recently, in Africa, the same method of expansion has been attempted with such interesting developments, that it seems not altogether disproportionate to the plan of this work to devote a separate chapter to the subject.[1]

In the first place, however, some account must be given of the commercial system which grew up out of the mediæval practices and institutions outlined above — the system which in England was only broken down in the middle of this century and which still dominates the policy of most other countries.

§ 5. *The Mercantile System.* When Adam Smith set about the work which was destined in the hands of practical statesmen like Cobden and Peel to revolutionise British commercial policy, the Mercantile System had in many respects reached the stage of degeneration. The ideas, which at first were certainly intelligible and probably fostered trade, had degenerated into superstitions which were unintelligible and checked the natural expansion of commerce.

The root idea of the system was the promotion of national interests and the subversion of the interests of the foreigner. The Navigation Acts, for example, upon which Adam Smith himself bestows the highest praise, were intended not only to encourage British shipping, but also to injure the Dutch; and in both objects they were for a long time successful. The present strength and expense

[1] Ch. XXIV.

of the British navy shows that Britain still associates national prosperity with naval supremacy, and with the command not only of the narrow seas but of the wide ocean.

The Mercantilists also sought to promote national power by encouraging those industries and trades which were supposed to be of advantage to the country. The more expensive the manufacture exported, so much more skill was probably required for its production—and it was thought better for the country if the cloth, for example, which it exported was of fine quality and good design and colour. And in spite of the popular delusion that Adam Smith had shown that it was a matter of indifference what kind of labour was undertaken so long as the product was cheap, it still seems to Englishmen a reason for congratulation that during the last fifty years the classes of skilled workers have increased in numbers relatively to the unskilled. The Mercantilists were also of opinion that agriculture was the most important national industry, and the bounties given on the exportation of corn and the duties imposed on its importation undoubtedly tended directly at any rate to encourage corn-growing. Similarly, the Mercantilists firmly believed in the homely proverb of keeping their own fish-guts for their own sea-maws, and any specially valuable raw material, *e.g.*, wool, coal, etc., or instrument of production, living or dead, they endeavoured to keep within the country.

Having looked to the ships and the men, they also anticipated the modern Jingo by looking to the money. They believed that an abundant supply of money was necessary for defence and offence—a belief which still survives in the great military states of Europe. They believed further that money drives trade, and no one now would contend that a system of barter is even possible. Further, they thought it was a principal part of the business of the statesman to open up new markets, whether by commercial treaties or planting colonies, and to discourage the foreigner was sup-

posed a most effective method of encouraging the native. Finally, they drew distinctions between foreigners — some were considered not so bad as others; thus, for example, advantages were given to Portugal which were denied to France, just as at this moment Canada proposes to give advantages to Britain that are denied to Germany.

§ 6. *Adam Smith's Refutation of the Mercantile System.* Adam Smith attacked both the ideas and the methods of the Mercantile System. It is to be observed, however, that he was far from stating the principles of free trade in the simple and dogmatic form to which they were afterwards reduced for popular consumption. Adam Smith was intensely national in spirit, and nationalism is, as we saw, the keystone of the Mercantile System. He not only approved of the Navigation Acts, but also in some cases of retaliation, and he elaborated a great scheme of federation with the colonies. He thought that freedom of trade should be only gradually restored if industries that employed a large number of labourers depended on protection. He considered that different modes of employing the capital of a country involved different degrees of advantage, and his general tests of advantage are the effect on the employment of labourers and the interests of the great mass of consumers who are also for the most part labourers or their dependents. He maintained that of all the modes of employing a given amount of capital, agriculture was the best; that any employment of capital at home was more advantageous than employment abroad; that the near trade was more advantageous than the remote; and the carrying trade less advantageous than any trade of consumption, on the ground of the better employment of labour in proportion as capital is kept in a country or returns to it quickly.

Adam Smith endeavoured to show not that the nationalist aspirations of the Mercantilists were unworthy, but that the devices adopted to gain their ends were in almost all cases useless or hurtful. The central fallacy of the

system he found in the undue importance attached to money from the national point of view, although no one has shown more clearly the advantages of the use of money, and also the need for governmental regulation of money and banking. He maintained that, in the natural course of trade, every nation would acquire sufficient money to circulate its commodities; that apart from other elements of indebtedness imports were paid for by exports, and that the real advantages of foreign trade were to be measured not by a fictitious monetary balance, but by the increase in the consuming power of the people and the extension of division of labour with the extension of markets.

In any case, he argued, it was absurd to regulate commerce by considering the balance of trade with each particular country, and that the most effective method of obtaining a favourable balance against the rest of the commercial world was to sell in the dearest and to buy in the cheapest markets.

Again, as regards the accumulation of treasure for military purposes, he showed historically that great wars cannot be carried on simply by the export of money, and we know from more recent experience that even bankruptcy will not prevent a nation going to war. Although a certain reserve of gold may be useful against sudden emergencies in war, as in banking, no country would now endeavour to accumulate treasure by means of a favourable balance of trade.

So far as the undue importance attached to treasure was concerned, Adam Smith's refutation of the Mercantilists was complete, but neither Adam Smith nor his successors have succeeded in convincing the governments of the world that perfect freedom of trade is best both for all and for each. And as regards the United Kingdom, in some respects the policy of free trade has been carried beyond the limits suggested by his own principles. He certainly never contemplated such a reversal of the old

colonial policy as to allow the colonies to impose differential duties against the mother country. He argued that the greatest freedom of importation could not affect British agriculture, and referred specially to live cattle, preserved meat, and corn. It would be difficult to reconcile his views on the benefits of agriculture with the perfect freedom of importation which has resulted in the present depression. Similarly, it may be plausibly maintained that the same line of reasoning which justified retaliation might also be used to justify countervailing duties against bounty-fed sugar, and to the preferential treatment of nations which offered reciprocal terms. The truth appears to be that the adoption of free trade by the United Kingdom in the sense of extreme *laissez-faire* was due to the force of events rather than to the force of reasoning. And so far as reasoning prevailed, it rested mainly on the negative position that governments were neither wise enough nor strong enough to regulate foreign trade with advantage. An appeal to the actual experience of the United Kingdom seemed abundantly to confirm this view. The disastrous attempt to extract a pepper-corn rent from the American colonies as a symbol of sovereign power; the famine prices of corn during the great wars against Napoleon; taxes on everything and everybody capable of being taxed — the direct burden being multiplied many times by the indirect effects on industry; a tangle of commercial treaties and navigation laws impeding the natural course of trade by land or sea, — such were a few of the more glaring and full-grown examples of the incapacity of governments, whilst, on the other hand, the popular cry for a cheap loaf was intensified by the failure of the potato crop in Ireland, manufacturers were clamouring for cheap raw material to take full advantage of the industrial revolution, and finally it was discovered almost by accident that the abolition or reduction of duties actually caused an increase of revenue.

## CHAPTER XXIV.

### CHARTERED COMPANIES.

§ 1. *Comparison of the Old and New Chartered Companies.* In dealing with Chartered Companies, I propose to take, as a basis for comparison and contrast, the present British South Africa Company. The historical inquiry may throw some light on the policy of granting charters to companies under present conditions, and, on the other hand, the reference to a living example may serve to bring out the real meaning and objects of the old charters.

Probably few but special students of economic history are aware of the extent, both in time and space, of the field of comparison. A few significant facts will, perhaps, give a more just and graphic measure than a long array of figures. One of the earliest and most interesting examples is offered by the Russian Company. The object of this company was partly the discovery of new lands, and partly the development of trade. Its origin was due to an expedition under Sir Hugh Willoughby in 1553, who made a valorous attempt to reach China, or Cathay as it was then called, by the discovery of a northeast passage round Russia and Siberia, the material incentive being to deprive the Portuguese of their spice trade with the Moluccas. A year or two later his two ships were found by another explorer with all on board frozen to death, and Sir Hugh seated in his cabin, with his papers and diaries lying on the table. The Russia Company did not succeed in reaching Cathay by the northeast, but it opened up a trade with Northern Europe, and developed the fisheries off Spitzbergen, Greenland, and Ireland.

This company also succeeded in establishing an overland route through the very centre of Russia by way of the Caspian Sea to Persia, and hoped and tried to reach India and even China by the same route. It seems strange to read that in 1569 the English ambassador at the court of Russia obtained a commercial treaty between the two countries, in which the company were granted an exemption from all customs duties, and permission to transport their wares through Russia to Persia. And it is worth noting that it was the establishment of trade that really led to the establishment of the embassy, and of cordial diplomatic relations with Russia. Even that period crystallised in the line of the poet as "the spacious times of great Elizabeth" can offer few scenes more picturesque and full of daring than the efforts of the Russia Company to reach Cathay both through the ice-fields of the north and the deserts of the south. Elizabeth also granted charters to companies that traded with Turkey, Guinea, and Morocco, and parts of America, and in the last years of her reign was founded the greatest of all Chartered Companies; namely, the East India.

About a century later than the Russia Company (in 1670), one of the most remarkable companies, namely, the Hudson's Bay Company, was instituted on similar lines. The primary object was to discover a northwest passage to the South Seas, and failing that, to exploit the furs and fisheries of the northeastern parts of America. It is interesting to notice that of all the early British Chartered Companies the Hudson's Bay alone has at present a quotation for its shares on the Stock Exchange, and perhaps it is the only one that did not abuse its privileges. The others as trading or commercial companies either died a natural death or lost their charters through abuses, although in many cases the territories which they opened up became great dependencies and colonies of the British Empire. Some of these colonies shared in the secession of the United States of America,

some of the dependencies were lost in the great wars, and some of the great trade routes were again closed by the restrictive policy of the nations concerned, but it is not too much to say that a large part of the present foreign trade of Britain originated with the Chartered Companies, and a large part of her present dominion was first acquired under the same auspices. Whether the trade or the dominion would have reached such dimensions without the Chartered Companies may be a matter for speculative argument, but as a matter of historical fact in the beginnings of the expansion of England, the grant of a charter seemed to successive governments the most natural and effective expedient, and the encouragement of the State took that particular form. An examination of the conditions under which these old companies rose and flourished and of the causes of their decay or displacement by other agencies ought to throw some light on the question how far Chartered Companies are likely in our own times and with the changed conditions of affairs to assist or retard the further development of trade or dominion.

§ 2. *Comparison with the British South Africa Company.* As indicated in the last section, in making this examination it will be convenient to take as the model — both for contrast and comparison — the present British South Africa Company.

At first sight it would appear as if the conditions of the territory assigned to that company were in most essentials similar to those that prevailed when in other times and places such companies succeeded. The country is new and its resources are unexploited; the natives are in a state of barbarism; communications are difficult and dangerous. To develop the trade of such a country, association on the part of the settlers or traders seems necessary, both for defence and for government. The home government cannot be expected to send out soldiers and policemen to make the place ready for the traders; the traders themselves must provide men and money for

those very elements of civilisation that we are apt to take for granted; *e.g.*, the protection of life and property, and the means of communication. And again, it may be urged that it would be grossly unfair for one set of men to bear all the preliminary risks and expense, and another set to step in and reap the harvest. Accordingly, it may seem plausible and natural to grant to those willing to venture their lives and capital certain rights and privileges; to delegate to them some of the functions of government, and to grant a certain degree of monopoly or exclusive trade against "interlopers," as they used to be called.

But although the conditions of barbarism in Africa are in the main such as favoured the establishment of Chartered Companies in former times, the conditions of civilisation in Britain and Europe are by no means so favourable. No government in this country could now confer privileges equal to those conferred by the early charters; our ideas of the treatment of natives, of the relations of government to trade and commerce, and of public policy as regards other civilised nations, combine to make a grant of such privileges impossible. The old charters, which were meant to encourage the discovery and occupation of new countries, regarded the rights of the natives in much the same way as the Jews regarded the rights of the natives of their promised land, — they might be cleared off or enslaved, as was found most convenient. One set of Chartered Companies, for example, drove out or exterminated the natives of America to make room for plantations, and another set exploited the west coast of Africa to supply these plantations with negroes for slaves. During the whole of last century and even down into this century the traffic in slaves was not only permitted, but encouraged, by civilised governments. If, as is generally the case, the old charters are silent as regards the natives, it is not because their rights were taken for granted, but because they were never recognised.

§ 3. *Treatment of Native Races.* If, however, we turn

to the British South Africa charter, we find that just and generous treatment of the natives stands in the very forefront. It reads almost as if the primary object were the civilisation of the natives, the company only making a kind of silver, or rather gold, collection to pay the expenses of its philanthropy. The lands and mines are supposed to be obtained by concessions from the chiefs — not by conquest and not even by fraud, the two ancient modes of acquisition; and the natives are to be governed or let alone according to our most approved and latest ideas. They are to be allowed no strong drink, but they are not compelled to become Christians; on the contrary, it is expressly provided that they may practise their own religions except so far as is supposed inconsistent with humanity. Dealing in slaves and servitude are to be discouraged as far as is practicable and finally abolished by degrees, but as regards lands and goods, marriages, the succession to estates, and the like, the customs of the natives are to be strictly respected. This respect for the native people is extended to the native beasts, and perhaps the most curious clause in the charter is the 21st, which provides for the preservation of elephants and other game, always provided that the hunting rights of the natives are not to be interfered with, except so far as providing for a close season. We may well say of the framers of this charter as Chaucer said of his most gentle character,

"And all was conscience and tender heart."

This display of tenderness is perhaps a little too prominent, and we are reminded of the advice of old Isaac to the young angler in baiting with a frog; viz. to use him tenderly as if he loved him, in order that he may live the longer. Africa without natives would give little profit, and without game little sport.

I trust, however, that these references to the treatment of the natives will not be misunderstood. There can be

no doubt that the most humane treatment in the largest sense of the term — that which most accords with our ideas of toleration and of respect for man as man, that kind of treatment will in the end prove most advantageous to the European settlers themselves; and whether advantageous or not, it is the only kind of treatment the public sentiment of this country will permit. But my present point is this, that those restraints as regards the lives and lands, the customs and possessions, of the natives, impose burdens and curtail privileges to an extent which was formerly unknown. The early Chartered Companies were able to adopt rough and ready methods in government and in making profits which for the time at least rendered their task comparatively simple; although it must not be forgotten that in general these primitive methods led to such abuses that the privileges were annulled. They were, however, annulled after the companies had done their work of annexation and settlement.

§ 4. *Monopoly of Trade.* Consider next our modern ideas as regards the relation of government to trade and industry. The central privilege of the old charters, the support of the whole system, was monopoly. The territories of new countries were assigned to the companies just as bits of the promised land were assigned to the tribes of Israel, and the companies, like the tribes, were extremely jealous of their rights; but as soon as any company built forts and opened up a trade, the interlopers interloped, and often became promoters of a new company. In those days the Crown expected and exacted a share in the profits, — if any were visible; bribery was the natural preliminary to monopoly, and without monopoly the companies could not, or thought they could not, flourish. The old companies were of two kinds, — regulated and joint-stock. A regulated company was founded in the likeness of a guild; the members paid the fees, conformed to the by-laws and conditions of entry, contributed to the necessary expenses, but traded independently at their own cost

and risk. Joint-stock companies, as the name implies, traded on a common stock or capital, some of which from early times was provided by widows, orphans, and clergymen who could not trade for themselves. But both kinds of companies aimed at monopoly as against intruders, and no less an authority than Adam Smith maintained that without a monopoly such companies could not succeed. Here again, however, we find what seems a necessary condition of success in the beginning a necessary cause of decay or extinction in the end. The grant of monopolies by the Crown in the home country was not permitted even to such a powerful monarch as Elizabeth, and one of the signs of weakness and infatuation on the part of the Stuarts was the attempt to reassert this abandoned claim. As regards foreign trade and the Chartered Companies, the old method of granting monopolies was acquiesced in until by the Declaration of Rights in 1689 all monopolies not actually confirmed by Parliament were abolished. Accordingly we find that eventually the regulated companies were thrown open to any British subject who paid the fees and conformed to the regulations, and the exclusive trading privileges of the joint-stock companies were curtailed or extinguished. This change of policy was the natural outcome of experience; and the law and the constitution simply recognised and confirmed the change which had already practically taken effect. The maintenance of an exclusive monopoly was found to be both impracticable and inexpedient.

When we refer for comparison to the British South Africa Charter, we find it definitely stated (clause 20) that "nothing in this our charter shall be deemed to authorise the Company to set up or grant any monopoly of trade." It is true that this provision receives apparently important qualifications, and the right is reserved to the company of granting concessions for the establishment of banks, railways, tramways, waterworks, and the like, if approved by the Secretary of State. It is, how-

ever, quite certain that such approval would not be forthcoming if the undertaking were shown to be simply for the profit of the company and not for the public good, and the clause would be strictly interpreted according to the now settled and established practice of this country as regards monopolies. It would be indeed ridiculous to suppose that an exclusive privilege could be revived in the present day which had become impossible under far simpler and ruder conditions. Thus the privilege which was deemed essential to the success of the early companies — the privilege of exclusive trade — is denied in the present day as emphatically as the privilege of enslaving native labour. It may indeed be admitted that according to the light of history the absence of monopoly (just as the absence of the privilege of slave-dealing) will ultimately lead to the advantages both of the new territory, the home country, and the Company itself, but the far-off interest implied in the world "ultimately" does not always commend itself to shareholders and directors, and there is always the temptation to make more speedy gains by some of the ancient methods of acquisition.

§ 5. *Relations to Foreign Powers — America.* The consideration of the monopoly of trade as against other British subjects naturally leads to a comparison of the policy of the early charters with the latest on the question of their relations to the subjects of foreign states and those states themselves. The early charters generally mention in a polite and perfunctory manner that the company which is sent forth to take possession of a new country is to pay respect to the previous occupancy of any other Christian and friendly power. But the geography of the times was very imperfect, and the limits to what is now called the sphere of influence of a foreign power could not be laid down with precision in the absence of maps. In the Hudson's Bay Charter, for example, the grant includes the whole trade and commerce of all those seas, straits, bays, rivers, lakes, and sounds — we observe the

large liberality of these old grants — *in whatsoever latitude they shall be* — provided they lie within the straits commonly called Hudson's. Unfortunately, however, the French started companies with equally liberal charters, a little further south, and the consequence was that collisions were natural if not inevitable.

It would be easy to multiply instances of the overlapping of spheres of influence, but it may be taken for granted that very little attention, if any, was paid to a claim of territory that was not supported by actual and apparent possession. But the most obvious method in those days of discovering whether the possession was effective or not, was to make an armed incursion. Thus we read that in 1682, whilst France and England were at peace, the French fitted out two ships in the St. Lawrence and sailed into Hudson's Bay: there they captured an unfinished fort and took all the company's servants captive into Canada. A great outcry was made in England, and the French king repudiated the transaction, and even promised an indemnity, the payment of which is not recorded. The British Company at great cost erected new forts, but about four years after the first raid — the countries being still in absolute peace — the French made another incursion overland with still greater success, capturing all the forts but one. Again there was an outcry, — again there were claims for damages, and the claim must have been circumstantial enough, as it was figured accurately at £108,514 19*s.* 8*d.* It would be interesting to know what damage the 8*d.* represented, but the French king being, according to the historian, sure of our king, namely, James II., paid neither the pounds nor the pence, but retained in his hands the principal fort. The retention of this fort subsequently led to a claim on the part of the French — on the favourite diplomatic ground of accomplished fact — to the whole of the Hudson's Bay Territory.

§ 6. *India.* It is, however, in India that we find the

best examples of this system of free fighting. During the first half century of their existence the English and Dutch East India Companies were, as a rule, in a state of nature; that is to say, a state of war. For various excesses committed between 1611 and 1652, Cromwell compelled the Dutch Company, *inter alia*, to pay upwards of £85,000 in cash to the English Company, it being proved to his satisfaction that the Dutch had done — on balance — that amount more damage to the English than the English had done to them. But Cromwell was one of the strongest foreign ministers England ever had, and the Dutch naval power had been destroyed by the genius of Blake, who had taken Van Tromp's broom and swept the narrow seas.

About the same time we find an early instance of arbitration which shows the great simplicity and vigour of Cromwellian methods. The Dutch had seized some British ships in Danish waters, and England and Holland each appointed two arbitrators to adjust the differences. But instead of being obliged to refer for guidance to their respective governments on any difficulty arising, and thus prolonging the negotiations indefinitely, the arbitrators were compelled to give their judgment before a specified day, otherwise "the aforesaid arbitrators were from that day to be shut up in a chamber by themselves, without fire, candle, meat, drink, or any other refreshment, till such time as they should come to an agreement."[1]

[1] About a century later is recorded, perhaps the best of all examples of the old methods of interpreting and instituting precedents in international relations. The Dutch in Europe were at peace with Britain, but the Dutch in India were alarmed at the successes of Clive in Bengal. They made an alliance with a powerful nabob of Bengal, and sent ships to force the passage of the Hoogli up to the Dutch forts. Clive was greatly embarrassed, and prayed, it is said, for the news of a declaration of war between England and Holland. In the meantime the Dutch advanced, and the English commander sent a message to Clive, begging for an Order of Council to fall on the Dutch, and destroy them. Clive, who was playing at whist at the time, wrote the famous message in pencil, instructing the commander to destroy the Dutch, and promising to send the Order of Council *the next day*.

As in America, however, so also in India, it was the French who were our really formidable rivals. Every one knows that India was acquired through setting the native princes by the ears and supporting the strongest. The French originated the plan, and the British bettered the instruction. As a consequence of this rivalry, we find constant collisions between the French and British forces in India, whilst in Europe the two peoples were at peace. But as the peace — if there happened to be one — was of the nature of an interval of repose between two wars, its influence on the struggle in India was hardly noticeable. The war in India for the sake of appearances was ostensibly carried on between the allies of France and England, and not between the two nations themselves.

That this continuous series of conflicts between the East India Company and other European adventurers in India, although nominally for trade and plunder, was in reality for empire, is shown by one marked characteristic. From the grant of the charter of Elizabeth to its demolition after the great Mutiny, when its work was done, the policy of every successive government was consciously or unconsciously to support the company in the acquisition of territory and the expulsion of other foreign powers. Even the convulsions of the Civil War and the Revolution left this leading idea of foreign policy unaffected; a king or a government might try to extract money from the company, or restrict its trading privileges, or set up rival companies, but whenever it came to fighting for ultimate dominion, the government of the day advanced money in case of need, and supported the company by ships and men, either directly or indirectly. That this policy of expansion was in accord with the instincts of the people, is best shown by the impeachment of Warren Hastings and the sequel to that impeachment. This great trial before the courts and before public opinion is of special interest at the present time owing to certain

similarities in the political situation, not only as regards the British South Africa Company, but as regards wider issues.

§ 7. *Warren Hastings and Burke.* As the dominion of the East India Company extended, and by the aid of such men as Clive and Hastings, the company became less of a trading corporation and more of a sovereign power, — an *imperium in imperio*, as is commonly said, — an outcry arose against the abuses of such a curious political contrivance. Towards the end of last century — on the eve of the French Revolution — the spirit of the age vibrated with an enthusiasm for humanity compared with which the present day altruism seems but a far-off, feeble echo. The finest oratory in the English language — in the judgment of Macaulay the finest in any language — is to be found in the impeachment of Warren Hastings by Burke. The spirit that pervades this series of orations is the spirit of humanity; the dominant thought is that the natives of India must be freed from the tyranny of the Chartered Company and its officials, and placed under the freed charter of all our liberties. The cause of oppressed nationalities was never pleaded with such burning eloquence, and never was the assumed oppressor assailed with such scathing invective. If we seek for a fitting comparison in our own day to the charges made by Burke against the company and Hastings, there is only one that seems sufficiently close and sufficiently appalling. The East India Company must be likened to the present government of Turkey, and Hastings must be likened to the present Sultan; the essence of this tremendous impeachment is that a British governor and British officials have dealt with India and Asiatics as the Sultan of Turkey and his Pashas have dealt with Armenia and the Armenians. The charge is not simply that the rights of the people of India have been trodden under foot, that India has been turned into a desert, and that human nature itself has been outraged, but that the trust of the Commons' House of

Parliament has been betrayed and the ancient honour of the English nation sullied.

Such was the charge, but for judicial purposes it was necessary to descend to facts by way of evidence, and to statutes for the award of punishment. With regard to the evidence, in spite of all the eloquence of Burke and his immense labour and industry in making the charges specific, the trial ended — fortunately for the honour of England — in the acquittal of the accused, and there is good ground for acquiescing in the judgment of Macaulay that Burke's imagination and passions, though stirred by the noblest motives, "once excited, hurried him beyond the bounds of justice and good sense." As regards the statute on which Burke principally relied and of which, towards the climax of his accusation, he quotes the preamble in full, I doubt if a more curious perversion of history could be quoted than this very preamble. No wonder that he describes it "as the first act of this kind that ever was made in this kingdom, the first statute, I believe, that ever was made by the legislature of any nation upon the subject" — no wonder, indeed, for the very first words of the preamble are these: "And whereas to pursue schemes of conquest and extension of dominion in India are measures repugnant to the wish, the honour, and policy of this nation: Be it therefore enacted — " Further quotation is unnecessary; the act, as Burke says, was founded upon resolutions of the House of Commons expressly aimed against "the violent, intemperate, unjust, and perfidious acts of this man," and it was designed to put an end to the system of unauthorized wars, and raids, and incursions into native states. But there is no gainsaying the fact that it was by this very system England had become the dominant power in India, and the English only discovered that schemes of conquest and extension of dominion in India were repugnant to their honour and policy after the system had done its work. It is very like the self-denying ordinance proposed at the present day to

show the world how disinterested they are, the proposal, namely, to give up Cyprus, now that they have discovered that it has no harbour and will not pay, although curiously enough they have not yet discovered that Egypt is fit for self-government or any other government except their own. There can be no question, in the light of history, that the political instinct of the English people — or to adopt the popular language of the moment, the original sin of this nation, — is to covet everything of its neighbour's worth coveting, — and it is not content till the sin is complete.

But the English do not always adopt the tone of apology and penitence after swallowing the camel, and the political instinct sometimes finds more appropriate expression in acclamations and rejoicings. There could be no better example than the sequel to the trial of Warren Hastings. Twenty-seven years after his impeachment — sixteen years after the death of Burke had stamped his orations as classics — a scene was enacted in the House of Commons that was a fitting climax to the great trial scene in Westminster Hall. Warren Hastings — an old man of eighty — appeared at the bar to give evidence in the renewal of the East India charter. He was received with acclamations, a chair was ordered to be set for him, and when he retired the members rose and uncovered. It was not that Parliament and the people, after a momentary fit of sentimentality, had come to think lightly or callously of the people of India, that part of his case that pleaded for the recognition of the rights of the natives and of the responsibilities of the English government — that part of his case the eloquence of Burke had established once and forever. Justice to the natives had become as much a part of the national policy as the repression and abolition of the slave trade. But the political instinct of the people looked upon the acquisition of India, after a struggle of two centuries with successive European powers, as a magnificent achievement, and they delighted to honour the man who

at a critical stage had consolidated and governed that great empire for thirteen years. And during the generation that had passed between the impeachment and the acclamation the people had learned that the faults and mistakes had been exaggerated and the merits and successes undervalued. They recognised that the extension of the British empire had been only an extension of British civilisation.

§ 8. *National Instinct for Dominion.* This national instinct for territorial dominion is not merely a survival of barbarism, nor is it merely greed for gain. The barbaric idea of conquest — of which the chosen people were excellent exponents — was to exterminate or enslave the people and seize their lands and possessions; the modern idea, if we can call that modern which was also a ruling idea of the Roman Empire at its best — the modern idea is to establish peace and good government. Consider the present condition of India; instead of extermination we offer protection against plague and famine, and as for slavery we have broken our own rule of toleration and have offended native customs and religions by its abolition. I do not assert that the modern idea of the conquest of inferior races has been altogether purified; even in the world of abstract ideas philosophers still dispute over the very foundations of morality, and in the world we live in the motives that impel nations to wars of conquest and extension of dominion are always complex. In this complexity of motives, however, we can see that to a large extent old ideas have given place to new, and these new ideas accord with what we consider best and noblest in our own civilisation. And after all, what we call new ideas are themselves the product of the strivings of generations of patriots. If we ask ourselves seriously the question why we glory in the magnitude of our empire, it may be answered: partly because we think it adds to our riches, partly because we enjoy the sense of power and dominion, partly because we cling to old traditions and remember

the great deeds of history; but beyond and above all these elements of satisfaction we feel that throughout the British Empire we enforce those ideas of justice, personal freedom, and religious toleration which are the result of the constitutional struggles of centuries.[1]

§ 9. *Conclusion.* These ideas are, it is true, complex, and involve other than purely economic considerations, but at the same time they are necessary conditions of the highest economic development of modern times. The methods of the old companies are no longer possible. The Chartered Companies of the past went forth to exploit and conquer barbaric countries, armed with certain privileges — both expressed and understood, — and armed with those privileges they were a great force in the expansion of England. But these privileges carried in them the seeds of decay, which, when they grew up, choked and destroyed the companies. Broadly speaking, these privileges were three: the first and simplest was also the first to decay; namely, the monopoly of trade as against other British subjects. Accordingly we find in the South Africa charter that monopoly is expressly excluded. The second privilege, or perhaps we should say license, was as regards the treatment of the natives. In nearly every case it was found necessary to restrict the powers originally granted or allowed. And here also we find that the South Africa charter expressly recognizes the rights of natives, and that the license of the early companies is absolutely and strictly forbidden. The third species of privilege or sufferance or connivance — it is difficult to find a modern word for an extinct practice — was the privilege of fighting the Portuguese or Spaniards or Dutch or French — as the case might be — for the possession of these new territories, without going through all the formalities of diplomatic rupture or declaration of war. This privilege has also been expressly excluded

[1] See note at the end of this chapter.

from the South African charter, and every precaution taken to avoid foreign complications. It might seem, then, that compared to the old charters this latest charter is like the play with not only Hamlet left out, but also Ophelia, Polonius, and all the other characters except the Ghost. But such a comparison is not just. The South Africa Company, it is true, has no monopoly of trade, but it has other commercial concessions, and for their development it does not need monopoly in the old sense, and on the contrary it must encourage the immigration of labour and capital. Again, the officers of the company must treat the natives according to British ideas of justice, but we have long since discovered that not only on the higher grounds of religion or humanity, but on the lower grounds of policy, the gentleness of a Livingstone is infinitely preferable to the brutality of a Peters. And finally, although the company cannot of its own motion invade and annex the territory of other powers, neither, on the other hand, is it subject itself to similar unauthorized incursions from the neighbouring spheres of influence.

Thus taking a wide retrospect over the older companies, we are able to lay down with some confidence the conditions that will make for success or failure in the present venture. Any attempt under any pretext to revert to the abuses of former times, whether as regards other British subjects, or the native races or foreign powers, will certainly lead to a revocation of the charter; but, on the other hand, if without such abuses of privilege or opportunity a trading company can add another vast region to the British Empire, such an extension of British civilisation and dominion will arouse the instinctive sympathy of the other constituents of that Empire. In the words of Adam Smith: "No nation ever voluntarily gave up the dominion of any province, how troublesome soever it might be to govern it, and how small soever the revenue which it afforded might be in proportion to the expense which it occasioned. . . . The most visionary enthusiast

would scarce be capable of proposing such a measure with any serious hopes at least of its ever being adopted."[1]

[1] The argument of §§ 8, 9, may be strengthened by the following references: —

"In the case of the British possessions there are strong reasons for maintaining the present slight bond of connexion. . . . It has the advantage, specially valuable at the present time, of adding to the moral influence and weight in the councils of the world of the Power which of all in existence best understands liberty, and, whatever may have been its errors in the past, has attained to more of conscience and moral principle in its dealing with foreigners than any other great nation seems either to conceive as possible or recognise as desirable." — J. S. Mill, *Representative Government*, p. 133.

"Besides these material advantages, there are legitimate sentimental satisfactions derived from justifiable conquests which must be taken into account, though they are very difficult to weigh against the material sacrifices and risks. Such are the justifiable pride which the cultivated members of a civilised community feel in the beneficent exercise of dominion and in the performance by their nation of the noble task of spreading the highest kind of civilisation; and a more intense though less elevated satisfaction — inseparable from patriotic sentiment — in the spread of the special type of civilisation distinctive of their nation, communicated through its language and literature, and through the tendency to catch its tastes and imitate its customs which its prolonged rule, especially if on the whole beneficent, is likely to cause in a continually increasing degree. This latter result might be called a process of spiritual expansion, as distinct from the physical expansion which takes place when the conquered region is so thinly populated as to afford room for a considerable immigration of the conquerors." — H. Sidgwick, *Elements of Politics*, p. 299.

## CHAPTER XXV.

### COMPARISON OF FOREIGN AND DOMESTIC TRADE.

§ 1. *The Use of Money in International Trade.* I propose in treating the theory of international trade to follow the example of Cournot[1] in preference to that of Mill and most recent English writers, and to deal with the subject in terms of money, and not in terms of cloth and linen. Two reasons may be assigned for this procedure. In the first place, the actual trade of the world is carried on in terms of money. An English exporter of cloth sells his goods to the foreigner either for so much sterling or so much of the legal tender of the foreigner, and not for so much linen. He may in certain cases balance an export by the simultaneous purchase of produce by telegraph, but for the most part international transactions are settled by means of bills of exchange, and these bills are expressed in terms of money. It seems, then, illogical to assume that international trade is carried on by barter, when, as a matter of fact, it is carried on by money.[2] In the second place, the attempt to state the theory as a theory of barter leads, if not to inaccuracies, at any rate to inelegancies, as Professor Edgeworth[3] remarks of Mill's treatment. Mill's chapter on international values is perhaps the best example of arguing in a circle, or rather in cycles on epicycles of circles, that is to be found in any scientific work. He

[1] Ricardo himself also uses money in his exposition.

[2] On the differences between exchange by barter and by money, see above, Book III., Chap. I., §§ 4, 5.

[3] *Economic Journal*, Vol. IV., pp. 609, 624.

simplifies the problem by making hypotheses which take away all its complexity, and after four sections of close reasoning he seems only to reach the impotent conclusion that the produce of a country exchanges for the produce of other countries at such values that the whole of her exports may exactly pay for the whole of her imports.

Surely, if there are no other elements of indebtedness, this position might be taken as axiomatic, or, at any rate, it cannot require an elaborate proof. But the barrenness of the conclusion is admitted by Mill himself, for a little later on he points out in deference to "intelligent criticisms" that "it is conceivable that the conditions of this equation of international demand might be equally satisfied by every numerical rate which could be supposed." He then attempts to get rid of this "portion of indeterminateness" by an argument which his most recent and ablest exponents[1] admit is "laborious and confusing." And after still more "complicated and thorny" reasoning — as Cournot calls it — Mill himself is forced to declare that the new element — namely, the capital which a country has to spare to make exports — which was introduced for the sake of scientific correctness, does not seem to make any very material difference in the practical result. Professor Bastable,[2] in his restatement of the Ricardian theory, has avoided Mill's confusion, and has thereby succeeded in a most difficult intellectual feat, and Professor Edgeworth, with the aid of mathematics, has performed the still more difficult feat of distinguishing in all the theories of previous writers between the truisms and the paradoxes, the truths and the fallacies, the confusions and the axioms, of which they are compounded in varying proportions. That so many economists of the first rank have exposed themselves to such varied misunderstanding and just criticism in the statement of the principles which govern the hard realities of foreign trade, seems to show

[1] Professor Bastable and Professor Edgeworth.

[2] Theory of International Trade.

that the method of approaching the problem is not the best. It is true that Cournot himself, in spite of using money as the measure, and in spite of his mathematical genius, has fallen into error, but the error does not arise from the introduction of money.

The attempt to treat the problem in the reverse mode to that hitherto adopted and to begin with the complex realities of facts instead of the simple assumptions of hypotheses may appear unscientific. But such a procedure is often warranted; free trade, for example, finds its strongest support in the direct appeal to complex experience rather than in the statement of first principles. And further, it may be observed that all the writers who have begun with cloth and linen in place of money have allowed that the introduction of money can make no difference, and have proceeded to express their relative values in terms of relative prices.

§ 2. *Meaning of Foreign or International Trade.* International trade, as the name implies, refers to trade between different "nations." As in the case of most economic conceptions, so in distinguishing between "foreign" and "domestic" trade we have to leave a debateable margin. For the sake of clearness it is best to begin with cases in which there is no doubt. Take, for example, the trade between England and France, compared with the trade between London and Birmingham. The former is undoubtedly foreign, the latter is domestic. The following are the chief points of contrast: The two nations are politically independent, and the respective governments may impose various restrictions on imports and exports; labour and capital move with comparative difficulty between the two countries, owing to various causes; *e.g.*, distance, differences in language, religion, social customs;[1] the two nations have different monetary systems, and payments are made for the most part by bills of exchange

[1] Cf. Cairnes, *Principles*, Part III., Chap. I.

founded on the actual transactions of commerce. It will be observed, however, that the differences are differences of degree only. England, for example, in spite of its political independence, treats all other nations on an equal footing; about 70 per cent of English people remain in the counties in which they are born; and although the coinage is different in the two countries, any amount of gold can at once be converted from one coinage to the other.

Again, it is not necessary that all these differences should be present to constitute "foreign" trade. England and Australia are politically united, though in a less degree than two English counties, and there are other similarities and affinities, and yet the trade between the two would for most purposes rank as foreign trade. It will be found also, as in the case of most complex economic conceptions and definitions, that stress is laid on different elements in different problems — in free trade and protection the attention is mainly directed to the political element, in the pure theory of international values to the comparative immobility of labour and capital; in the "foreign exchanges" to differences in the monetary systems and the transmission of the precious metals.

I propose to begin with the foreign exchanges in order to discover if in the other problems it is safe to argue in terms of money. There will be the further advantages in this plan that we begin with the actual facts, and that the corresponding theory, although to some extent technical, is fully established, and has been treated by writers who are at the same time skilled economists and versed in practical business.[1]

[1] The work of Mr. Goschen on the Foreign Exchanges is still the standard, and brings out the application of economic principles most clearly, but, unfortunately, many of the examples have lost their interest through changes of circumstances. The works of Mr. George Clare, under the modest titles of *The A B C of the Foreign Exchanges* and *Money Market Primer*, give fuller and fresher details, and clear up some points left doubtful by Mr. Goschen. Tate's *Cambist* is the most complete practical work of reference.

# CHAPTER XXVI.

## THE FOREIGN EXCHANGES.

§ 1. *Meaning of Foreign Exchanges.* The term "foreign exchanges" is itself technical, and in actual business so many technical terms are employed in speaking of the foreign exchanges that at first sight the subject appears to be as much beyond the limits of a statement of economic principles as are the technicalities of any other particular business.

If, however, we avoid the technicalities, it may be said that the subject[1] embraces three problems of a very general character: in the first place, we seek to discover the elements in the balance of international indebtedness, secondly, to describe the instruments or media adopted in various cases to effect a settlement, and thirdly, to explain the variations in the cost of these instruments or media to those who have to make remittances under different conditions.

§ 2. *Elements of International Indebtedness.* Before considering the elements of international indebtedness, it must be observed that the reference is not to any permanent indebtedness, but to the debts that have to be cancelled or met as they fall due. This point will become clear in the course of the analysis.

(1) In general, the most important item to take into account is the balance of material exports and imports. A country is a creditor for its exports and a debtor for its imports. It is clear that according to the nature of

[1] As in Mr. Goschen's standard work.

the trade the balance on the year may be in favour of a country and yet for the greater part of the year against it. Thus a country may import manufactures continuously and export during a brief season a greater value of corn.

(2) We may next consider loans or, more generally, investments made abroad. At the time a loan is being advanced it acts on the balance of the lending country like an excess of imports; it is, in fact, an importation of securities. The trade balance of England with the United States might be favourable, but a loan of English capital might easily outweigh the difference.

(3) The interest on such loans, however, as it falls due acts in the opposite way. It affects the trade balance-sheet of the creditor country like an excess of exports. Or, to put it otherwise, the creditor country may receive its interest from abroad in commodities.

(4) To a country with a large carrying trade payment for freights may be its most important trade item. A freight has been well described as an "invisible export."

(5) A country may act practically as broker or commission agent to other countries or as a general *entrepôt*. For the services thus rendered some kind of payment must be made. It is not for nothing that London is the settling house of the world.

(6) With some countries the expenses of their absentees amount to a considerable total. The typical instance was, and to some extent still is, Ireland. We may suppose that these expenses can only be met by exports of commodities. If the absentees had remained at home, the country could have imported so much more foreign luxuries for their use, the payment thereupon being made by exports.[1]

(7) Sometimes political causes have to be reckoned

[1] Or the country could have retained so much exports for their consumption. The absentee may be compared to a foreigner who has made investments in a country and draws dividends, so that (6) becomes a subclass of (3).

with. In times of peace there are the expenses of the administration of dependencies, colonies, and of defensive armaments. In times of war the expenses of offence may exceed all others for the time. At the conclusion of a war heavy indemnities may be exacted, which again may lead to loans from other states.

Such are the principal elements of international indebtedness, and the list might be increased by various minor items. What is more requisite, however, is to find some basis of classification or simplification. Perhaps the most important division is between the ordinary and extraordinary or normal and abnormal charges.

The expenses of a war, speculative investments of capital abroad, and loans to foreign states will appear in an irregular and uncertain way. On the other hand, in times of peace (political and commercial) there will be a steady flow of exports and imports in the ordinary course of trade.

The expression "ordinary course of trade" is, however, not so simple as it appears. It is usual to state separately the exports and imports, but, as is indicated, every one of the other items may be regarded at any rate as having the same effect on the balance as if it were an addition to the exports or imports. And we may go further and say that a country must meet not only its debts for imports but all its other obligations abroad, either by sending exports or by contracting a loan, which is a promise to send exports at some future time. The term "exports" for this purpose must be taken in the broadest sense, including gold and silver, freights, securities, services, and other immaterial forms of wealth.

It is plain that a deficit can only be met by a loan as a temporary expedient. We thus reach the conclusion that if a country is to remain solvent, it must continuously meet the balance of indebtedness against it by a stream of exports, and, conversely, a creditor country must receive a stream of imports over and above the value of its exports.

The case of the United Kingdom offers, perhaps, the best illustration of all the elements of indebtedness. The imports of *material* commodities have for many years exceeded the exports, and of late years the excess has been considerably over a hundred millions.[1] The explanation of this excess is found in the payments made by other countries on account of freights, interest on loans and investments, tributes, or rather *quasi*-tributes for services rendered in administration of dependencies, and the like. If allowance is made for all these items, it will be found that the country is, on balance, still exporting capital for investment abroad and that otherwise the excess would be greater.

As a further illustration, we may notice the paradox that, taking all the trading countries of the world together, the total imports exceed in money value the total exports, although, of course, they are actually the same things in different places. This difference of place, however, is sufficient to account for the excess — the excess being in effect cost of carriage.[2]

Another point demands special emphasis. It will be observed that the items of the balance-sheet represent for the most part large aggregates made up of a great number of independent transactions. Although we speak of the mutual indebtedness of England and France, for example, the indebtedness is not of one state to the other, but of a multitude of Englishmen to a multitude of Frenchmen.[3] If we confine our attention to exports and imports of material commodities only, the two states do nothing towards making or fulfilling the mass of contracts of sale upon which they depend — nothing, that is to say, beyond afford-

[1] In 1896 the total imports were £ 441,808,000, and exports of *British* produce and manufactures £ 240,145,000, making with reshipments a total of £ 296,379,214.

[2] See Sir R. Giffen's *Essays on Finance*, 2d Series, p. 164.

[3] "*Every transaction in commerce is an independent transaction.*" — Ricardo, McCulloch's edition, p. 78.

ing general security and open law-courts for a small number of disputed cases.

At the same time we may for convenience use the expression "international indebtedness," or speak of one country having a balance against it with another country; but we must always remember that the expression is an abbreviation for the balance on a mass of individual and independent accounts.

§ 3. *The Exchange of Foreign Debts and Media of Such Exchange.* Practically all these bargains — these millions of contracts — have been made in terms of the money of the respective countries. It may happen that the countries have the same money — as in the case of England and Australia; but in most international transactions the currencies are different in denomination — sometimes different in material, as when one currency is gold and the other silver or paper. What the currencies are is, however, for the present immaterial. All that we have to lay stress on is that eventually — whatever or how many the intermediate stages may be — every English export must be paid for in English money that will find its way into the pockets of the English producers, and, similarly, every French export must be paid for in French money.

Or, instead of saying that the English producers must in some way be paid in English money in England, we may say that the English consumers of French goods must in some way or other pay the French producers in France. It makes no difference to the principle whether we consider the trade as active on one side only or on both sides, and the general theory of the foreign exchanges is needlessly complicated by introducing at the beginning the different alternatives that may arise in practical cases. The essence of the matter is simple enough.

It would obviously involve needless trouble and expense if the debtors in France for English exports were to send gold to London at the same time that the debtors in England for French exports were to send gold to Paris.

If the aggregate indebtedness on both sides at any time is just equal, all that is necessary to effect a settlement is to make an exchange of debts.

Such an operation can be effected by means of bills of exchange. Those, for example, who have to receive money in France (on account of French exports) can draw bills payable in London in pounds sterling, and they can sell these bills for francs in France to those who have to pay pounds in London (on account of English exports). It is only when there are not enough bills available — when, for example, the English exports have exceeded the imports — that the balance must be met in some other way, *e.g.*, by sending securities or contracting a loan, or by sending gold itself or anything that will readily command gold.

§ 4. *The Mint or Nominal Par of Exchange.* If for the moment we leave out of sight the actual mechanism (*e.g.*, the bills), this exchange of debts is essentially an exchange of French money paid on the spot for English money payable in London. And if we were further to leave out of sight the fact that the English money is payable in London, the transaction becomes an exchange of French for English money.

In comparing at the same time and place the relative values of the two gold coins (*e.g.*, the sovereign and napoleon), it is obvious that in general the principal element would be the weight of fine metal contained in each.

If both coins are intended simply for melting, that would be the only consideration. Now the amount of fine metal supposed to be contained in each coin is laid down by the mint regulations of the respective countries. A comparison of these regulations shows that an English sovereign contains just as much fine gold as 25.2215 francs (the franc being the twentieth part of a napoleon). Similarly, it is found that the sovereign contains as much gold as 4.86⅔ United States dollars and 20.43 German marks.

To the relative values of different currencies of the same

metal determined in this way the name of "mint par" has been given. The mint par — like the mint price — is entirely a matter of statute; more precisely, it is an arithmetical deduction from the statutes of two different countries. As such, it is unalterable save by the repeal of the statutes. "The mint par depends 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." [1]

It follows at once from this definition that there is no fixed par of exchange between gold-standard and silver-standard countries so long as there is no fixed ratio between gold and silver. It follows equally that a fixed par may be expressed between the standard coins of two silver countries.

The mint or nominal par is of use solely as a basis of comparison. In the foreign exchanges, as the name implies, we must introduce again the elements at first omitted for simplicity; namely, the bill of exchange (or other credit instrument), and also the fact that the bill is bought in one country to be paid in another. Thus the exchange between London and Paris is at par when a bill purchased in London will command in Paris 25.22½ francs.

§ 5. *The Rise and Fall of the Exchange.* In considering the causes and limits of the rise and fall of the exchange, it is best first of all to state the general theory in terms of the price paid for foreign bills.[2] If, to take the simplest case, there has been more than the usual amount

[1] Clare's *A B C of the Foreign Exchanges*, p. 21. See also p. 17 on the conception of a real (as distinct from a nominal) par.

[2] Since the introduction and development of the telegraph, telegraphic transfers have largely displaced bills — traders pay more in cash and if necessary obtain loans from banks. The general theory is, however, best treated as in Goschen's standard work in terms of bills.

of imports into England compared with exports from England to France, there will be a stronger demand in London for the bills of the exporters payable in Paris. As a consequence, their price will rise. This rise in price will mean that a pound in London commands less francs in Paris, and thus the rise in the price of bills is the same thing as a fall in the exchange (the rate of exchange being expressed in terms of the money of the respective countries). Since the object of buying a foreign bill is to remit money, no one will give more for the bill than the mint par value of the money plus the cost of carriage; just as no one would give $2\frac{1}{4}d.$ for a postal order for a pound if he could register and send the pound itself for $2d.$ Accordingly, the price of bills cannot rise above the point at which it would be just as cheap to send the gold itself.

This is the specie point or, more precisely, the gold-export point from England into France. But, as just explained, a rise in the price of bills is the same thing as a fall in the exchange. Thus we may say that the exchange cannot fall below the gold-export point. Between London and Paris the cost of sending gold is about 10 centimes per pound, and consequently the gold-export point (par being $25.22\frac{1}{2}$) is $25.12\frac{1}{2}$. If the exchange falls below this rate, it is cheaper to pay 10 centimes for the transmission of the pound, itself, and change it into francs in Paris, than to buy a bill.

Similarly, if exports have exceeded imports, there is an excess of foreign bills for sale and a limited demand, and the price falls. This fall in price will mean that a bill worth so many francs in Paris will not obtain the par value of pounds in London, — or, in other words, that the pound commands more than the par value of francs. This is a rise in the exchange. The seller of the foreign bill will not sell it for less than the par value minus the cost of sending for the gold.

This being taken as before at 10 centimes per pound, the gold-import point into England from France is $25.32\frac{1}{2}$.

That is to say, if the exchange rises above this point, it would be better for the owner of the bill to send it to Paris and get the proceeds in gold. The gold points in different cases, being dependent on the cost of sending gold, will vary according to distance, means of communication, and "other hazards." [1]

For simplicity, hitherto only bills representing exports and imports have been considered. But any cause whatever which increases or decreases the demand in London for remittances to Paris so far causes a fall or a rise in the exchange. The demand may be for stock-exchange speculations or various kinds of banking purposes as well as for trade debts.[2]

§ 6. *Favourable and Unfavourable Exchange.* A rise in the exchange is said to be favourable and a fall unfavourable, ostensibly because in the one case more and in the other less of the foreign currency is obtained for a unit of the home country's money. It is clear, however, that if a rise in the exchange is favourable to the English importer, — if for his pound paid in London he can obtain more francs to meet his debt in Paris, — conversely, it is unfavourable to the exporter, who has to sell his bill for so much less. Thus, from the national point of view, so far as exports and imports are concerned one gain balances another loss. The mercantilist association of a rising exchange with a favourable balance of trade — it being assumed to indicate that the exports were in excess of the imports — was only occasionally and partially justifiable (as Adam Smith showed) according as the other causes of fluctuations were neutralised or not, and is now only of historical interest.

There is, however, a sense in which a rise in the exchanges may be said to be favourable to the nation as a

[1] Sir Thomas Boleyn, when appointed Royal Exchanger (1509), was to make for the bills granted to those going abroad "such agreements as *conscience* and the various circumstances of distance and other hazards require." — Macpherson, *Annals*, Vol. II., p. 36.

[2] Cf. Clare's *A B C*, p. 1, and Ch. XIII.

whole and a fall unfavourable — especially when the gold points are touched. A fall in the exchanges to specie point shows that gold will be withdrawn, and the withdrawal of gold means — taking London as typical — the weakening of the reserve of the Bank of England. The importance of an adequate reserve as the basis of the credit system of the whole country and the dangers of a foreign drain have already been described. A foreign drain may be due to demands for gold for some definite specific object, *e.g.*, the restoration of a coinage, the resumption of specie payments, political exigencies, and the like, — demands which are intermittent and not easily calculable, — or it may be due to a fall in the exchange to specie point for any of the reasons assigned. So long as the exchange remains at specie point, so long will the drain continue and it will be necessary for the Bank to take measures to "correct" the exchanges. The sale of securities for gold or borrowing from other banks can only afford temporary relief in emergencies.

It is plain that the Bank cannot operate directly on the adverse balance of indebtedness, but it can affect the exchanges directly and effectively by raising the rate of discount — assuming always that the market rate follows the bank rate, which it is almost certain to do when the reserve is seriously threatened. Indirectly the rise in the rate of discount by contracting advances may cause a fall in prices, thus stimulating exports and checking imports and thereby reducing the adverse balance.

§ 7. *The Bank Rate and the Exchanges.* For the sake of clearness, we may again use the familiar illustration of London and Paris. Bills payable in London may be bought in Paris for one of two purposes: for remittance — the case already examined — or for investment. Foreign bills — like other bills — become due after a certain time, and the present value is calculated according to the rate of discount in the place where they are payable. Thus if the London rate becomes higher than the Paris rate,

London bills become a more profitable investment to the Paris banker. This demand for investment lessens the supply for remittance, and the decrease of supply so far tends to raise the exchanges.

Further, if the London rate seems likely to remain higher, there is an inducement to send money to London for investment, and thus the demand for remittance is increased, and on the side of demand also the exchange tends to rise.[1]

It is not necessary for general purposes to examine in further detail the interconnection of the banking and credit systems of the great commercial countries. It is sufficient to observe that gold and the credit substitutes for gold which in normal times are accepted with equal readiness are, like other things, sent to the dearest market. It must be borne in mind, however, that the dearest market for gold or money from this point of view is not the market where the prices of commodities are lowest (or the exchange value of gold highest), but where the rate for loans is highest.

§ 8. *The Silver Exchanges.* Up to this point it has been assumed that the currency units of the foreign exchanges are gold. We may now consider the case of gold and silver, and we may take as the most familiar example the Indian exchange before the closure of the mints. The rupee contains a certain amount of fine silver; but as the price of silver reckoned in gold is variable, there is no fixed par. The exchange is quoted in terms of so many pence per rupee. Precisely the same principles are applicable as in the case of gold countries — after making allowance for the cost of converting one metal into the other. Any one wishing to pay rupees in India would give for a bill the price of the equivalent amount of silver plus the cost of carriage. So long, however, as the mints remained open (the case we are now considering), he

[1] For a fuller exposition see Goschen, *op. cit.*, pp. 138–9.

would obviously not give more, as it would be cheaper to send the silver and get it coined.

The balance of indebtedness between India and England is practically always in favour of the former; even after making allowance for interest on loans and for the expenses of government payable in England, there is a balance in favour of India — which must be met by the transmission of silver. Consequently the exchange is always at or near specie point.

The expenses of the Indian government due in London are met by drafts by the Indian Council on the Indian treasuries payable in India in rupees. These drafts being sold for sterling in London competed with trade bills and with silver as a means of remittance. The effect of a sale of these drafts at any time was equivalent to an increase of bills and so far lessened the demand for silver and so far its price fell. Similarly, every fall in the price of silver from other causes rendered the council drafts worth so much less — that is to say, so long as the mints were open.

Every fall in the exchange meant that to pay its expenses in London — some £ 16,000,000 annually — the Indian government was obliged to raise so many more rupees in India by taxation.

Accordingly — fearing the suspension of the purchase of silver by the United States — the government, in June, 1893, determined to dislocate the rupee connection with silver by the closure of the mints.

The consequence is that merchants who wish to pay rupees in India can no longer send silver to be coined, and therefore it may be thought that the demand for council bills is so far increased and their price rises and with it the exchange value of the rupee.

It is doubtful, however, if this rise in the exchange value of the rupee — above its natural silver price — which has certainly taken place can be explained simply by the increased demands for council drafts.

Although silver cannot be minted in India, it can always be sold for rupees at a price,[1] and, similarly, other readily marketable exports may be sent rather than pay a monopoly price for council drafts.

The real effect of the closure of the mints is to give the rupee a scarcity value in India — reckoned in silver.

We may suppose that the closure of the mints in itself made no immediate difference in the demand for rupees; people would wish to borrow money or to convert their silver ornaments (the principal form of saving) into money to the same extent as before. Recently famine and plague have increased the demand. Accordingly, when the old hoards and other sources (*e.g.*, foreign supplies) had become exhausted, there would be the same demand as before, but a supply less by the amount of the usual annual coinage. Under these conditions the rupee in India has naturally risen in value compared with silver.

This appreciation of the rupee relatively to silver is increased by causes affecting silver. The silver formerly coined is thrown on the general market, and it is possible that rupees may be hoarded in place of silver, as the latter tends to fall in price measured by rupees. It does not appear, however, that as yet this specific appreciation of the rupee has become general or, in other words, that general prices in India have fallen *pari passu* with silver. The stringency of the money markets and the very high rates of interest seem to indicate — what is probable theoretically — that general prices are unaffected and that there is simply a deficiency of circulating medium.

If this view is correct, the saving to the Indian government by the rise in exchange is a poor set-off to the losses incurred by the masses of the people through the depreciation of their savings in the form of silver, the difficulties

[1] "The closing of the mints has not caused any falling off in the imports of silver, which, in fact, advanced from RX 7,802,727 in 1894-95 to RX 8,329,716 in 1895-96 and RX 8,584,173 in 1896-97." — *Economist*, June 19, 1897.

imposed on trade by the scarcity of money when credit substitutes are only available to a small extent[1] and by the exorbitant rate of interest.

An artificial appreciation of the currency of this kind is as injurious to a country as an artificial depreciation through debasement.

§ 9. *The Paper Exchanges.* If a country formerly on a gold standard issues inconvertible notes and they become depreciated, gold in that country will be quoted at a premium, which may be said to measure the depreciation.[2] Paper being the currency, the rate of exchange will be quoted in terms of paper. In finding the true rate of exchange, all that is necessary is to make allowance for the premium on gold, or, in other words, to translate the paper into gold.

Apparently — that is, having regard to the old par — the nominal exchange is always heavily against a country with depreciated paper; but this is simply because the depreciation is worked into the quotation, the real exchange may be in its favour.

§ 10. *The Effects on Foreign Trade of Depreciation and Appreciation.* As a matter of fact during the process of depreciation, the balance of trade is likely to be in favour of the country.[3] A temporary stimulus is given to exports and a check imposed on imports. The exporter will sell for the same price abroad — that is to say, reckoned in gold — and unless all the nominal expenses of production — wages, transport, etc., reckoned in paper — have risen equally with gold, he will gain an exceptional profit by converting the gold (or its equivalent) into paper. Conversely, the importer must raise his prices as fast as the exchange falls (or the premium on gold rises), in order to

[1] To some extent the difficulty has been met by the issue of notes.

[2] *Cf. supra*, Ch. XV.

[3] *Cf.* Clare, *op. cit.*, p. 153. Goschen, however (*op. cit.*, p. 72), takes the opposite view. The effect on foreign trade varies according to circumstances. *Cf. Money and Monetary Problems*, 4th edition, p. 369.

remit the same amount of gold (or its equivalent) to the foreign country; but this rise in prices so far tends to check the demand.

The immediate effects of a fall in the gold price of silver on the trade between gold-using and silver-using countries are similar. If exports from silver countries obtain the same gold as before, this gold obtains more silver and there is a stimulus to exports until either silver prices rise or gold prices fall. Conversely, there is a check to imports — until a readjustment of prices takes place.

In the case of inconvertible paper the readjustment necessarily takes place within the country concerned. In the case of silver, as already explained, the readjustment may be in gold prices.[1]

In the case of appreciation of the currency — as in the rupee — a rise in the exchange (from the London standpoint) stimulates so far exports to India, since every rupee obtains so much more in pence. For the same reason, however, a check is imposed on exports from India.[2]

In this case, on the analogy of inconvertible paper, the ultimate readjustment will be made in the rupee prices.

§ 11. *The Effects of Fluctuations of the Gold Exchanges.* At this stage it will be useful to compare the effects on foreign trade of ordinary fluctuations of the gold exchanges with those just examined. In the first place, the exchanges oscillate between the narrow limits of the specie points; so that the difference from the point of view of mercantile profit is very small. Secondly, the oscillations are so frequent that exports and imports of merchandise cannot at once respond to every movement. Thirdly, gold is the only commodity in the gold-standard countries which can be sold in any quantity desired at a fixed price. Thus, although theoretically if the exchanges fall to specie point the balance may be adjusted by an

[1] See Ch. XVII.

[2] The immediate effect of the closure of the mints was to make the imports into India exceed the exports for the first time on record.

increase of exports of any kind, as a matter of fact in ordinary cases when bills and other credit instruments are insufficient, the balance is adjusted in gold.

It follows, then, that the ordinary fluctuations of the foreign exchanges about the gold par only affect foreign trade indirectly; that is to say, through the bank reserves and the rate of discount. In the normal state of trade between countries having the gold standard and fully developed banking and credit systems there is no essential difference in the settlement of debts between foreign and domestic trade.

It remains to consider the effects of considerable changes in the balance of trade, which further, for the sake of clearness, may be supposed to be suddenly made and *quasi*-permanent in character.

§ 12. *The Case of a New Export — The Ricardian Explanation.* Suppose that owing to great natural discoveries — *e.g.*, of mineral oil — England is able to add a considerable amount to its exports to other gold-standard countries, *e.g.*, to France and Germany. I will first of all give Mill's or the Ricardian[1] solution. Since the imports no longer pay for the exports, there is a rise in the exchanges to specie point and the balance must be sent in gold. As a consequence of the influx of gold into England, general prices there will rise and as a consequence of the efflux of gold from France, Germany, etc., general prices in those countries must fall. As a result of these changes, some old exports from England will now be too dear for the foreigner, whilst things formerly too dear to send to England can now, owing to the fall in prices, be exported thither with a profit. Thus the new English export is balanced partly by new imports from abroad and partly it simply takes the place of old exports.

On this view the balance of trade is restored, with the difference that general prices are higher in England and

[1] Ricardo, Ch. VII.

lower in the other gold-standard countries than they were before.

On the face of it, however, this solution appears paradoxical. The cause does not seem adequate to produce the effect, especially when we consider that the new export will be sent not merely to one or two gold-standard countries, but throughout the commercial world. It seems necessary, at any rate, to abandon the idea of a fall in general prices abroad; for even supposing the new export is at first paid for in gold, the contraction of the world's currency would be relatively small compared with the increase in that of England.

But will general prices rise in England until some old exports become too dear? This supposition seems similarly, if not equally, extravagant; for the gold sent on balance will find its way into the banking reserves and, as Mill himself allows, will so far not affect prices directly.

Again general prices in England cannot rise above the general level of gold prices in the commercial world—after allowing for *quasi*-permanent causes of differences.[1] But on Mill's view a rise in English prices sufficient to check exports and to increase imports would apply to the whole range of both, and for the trade to continue this change in price must be considered permanent.

It is submitted that the following solution is not only more simple but more in accordance with the facts.

§ 13. *An Alternative Explanation.* Consider what happens in the home country. The new mineral oil, to begin with, displaces some less favoured articles of consumption, *e.g.*, English candles, and this part of the national income is diverted from the producers of those things to the providers of the oil. So far there is no effect on general prices or on any prices except those of which the consumption is affected.

Precisely the same argument may be applied to the foreign consumer. The new oil may at once take the

[1] *Cf.* Chs. XVI. and XVII.

place of one or more particular old exports and the balance may remain as before. Suppose, however, that the foreign consumer purchases the oil with money entirely saved from things produced at home, *e.g.*, French candles. This money being transferred to the English oil providers, they may demand particular French goods and so far an additional import is secured to balance the new export. Or they may demand more English goods, in which case they consume the English goods (or their substitutes) formerly sent abroad, and there is a sufficient displacement of exports.

The notion that a new export can be obtained continuously only by an operation on the general levels of prices of one country and the rest of the world is suggestive of the primeval simplicity in which roast pig can only be obtained by a continuous series of conflagrations.

§ 14. *The Case of a Tribute.* Suppose that one country is obliged to pay to another annually a tribute or interest on capital borrowed. To begin with, says Mill, commerce being in equilibrium, the interest or tribute must be remitted in money, and this remittance of money will go on until through the abstraction from the currency of the paying country general prices fall, and through the addition to that of the receiving country they rise, until the excess of exports over imports caused by this change in prices is just equal to the tribute or interest. Mill follows the argument to its logical conclusion, and says that "the paying country will give a higher price for all that it buys from the receiving country, whilst the latter, besides receiving the tribute, obtains the exportable produce of the tributary country at a lower price."

In this solution of the problem it will be observed that only two countries are considered, that the rise and the fall of prices in the two countries respectively are supposed to follow the actual increase and decrease in the volume of their currencies and no account is taken of banking or credit.

Even in this simple hypothetical case, however, the solution given, though possible, is not the only one or the most probable. The government of the paying country must levy taxes to the amount of the annual tribute, and thereby will diminish the consuming power of the people by so much. Assume that, in the first place, actual money is taken from the pockets of the people. We may suppose that in consequence there will be partly a lessened demand for imports and partly an excess of home commodities available for export. At the same time the receiving country — when the money is sent to it — will have so much more to spend and can take more imports and also consume things formerly exported. In this way an excess of exports from the paying country equivalent to the tribute can be brought about without any change in general prices.

There is, however, no need to assume that money is actually sent from one country to the other to bring about this result. On the occasion of the first remittance the paying government will compete for bills; and at the same time, owing to the changes in consuming power of the two nations, there will be an excess of bills sufficient to meet this extra demand.

If, now, we take into account the fact that the two countries cannot in practice be isolated, the supposed effect on general prices becomes still more improbable. For if general prices fall in the paying country, exports from it to all other countries will increase and imports therefrom to it will diminish, and the balance of trade with the whole commercial world will turn in its favour. Similarly, the balance of general trade will turn against the receiving country so long as its prices are above the general level. Thus we reach a *reductio ad absurdum;* for gold will on this reasoning flow to the paying and from the receiving country.

If we further introduce credit and banking, the supposed contraction and expansion of the currency seems still more

remote from the facts, whilst, on the other hand, the transference of consuming power from one nation to the other is simplified.

It only remains to add that in the explanation here offered if the articles at first withdrawn from consumption in the paying country are not suitable for export, the means of production can be transferred to others, and, similarly, if the articles formerly exported from the receiving country are not suitable for home consumption, others can be produced in their stead.

This view that the tribute is paid by an operation on the demand for particular articles and not by a change in two sets of general prices is confirmed when we take other examples. Suppose, for example, that the paying country has an inconvertible currency. In this case it is clear the government must offer such a price for bills that the requisite amount will be created by new exports. In the same way if the paying country has silver and the receiving country gold as a standard, we cannot suppose that silver is withdrawn from one currency and is sent to swell the other. The case of India is a practical example. In spite of its large and permanent indebtedness to England, on balance India receives silver.

§ 15. *General Conclusions on the Distribution of Gold.* If we take a system of gold-using countries, the general result of this examination of the foreign exchanges is to show that the levels of prices in particular countries are adjusted to the general level throughout the system. Broadly speaking, gold may be sent from one country to another for one of two purposes.

(1) It may be sent to meet previous obligations. In international trade exports pay for imports through the medium of bills, and it is only when these credit instruments are exhausted that gold is sent for the relatively small balance. And even as regards this balance it may be met by sending securities or by any readily salable exports in place of gold. The gold thus sent augments the

banking reserves of the one country and so far diminishes those of the other, but there is no direct expansion and contraction of the currencies, and still less does the course of international trade depend on the rise and fall of general prices in particular countries according to the volume of their currencies. The amount of gold sent by way of balance depends on the excess of the exports over the imports and thus follows, and does not determine, the course of trade.

(2) Gold may be sent from one country to another for banking requirements. If a country finds its banking reserve getting low, it seeks to "correct" the exchanges by raising the rate of discount. This relative rise attracts gold directly and indirectly tends to lower prices by checking advances and thus so far stimulates exports and diminishes imports. It is by its effects on the banking reserves that the passage of gold from one country to another has its principal influence on foreign trade — and it is only considerable in exceptional circumstances.

Commercial countries are now so closely connected that we have to compare any one with the rest of the world. Thus any stimulus to exports or imports, being diffused over such a vast area, is speedily lost. The foreign exchanges generally rise and fall together and we cannot consider any two countries as if isolated.

So far, on the whole, there is no essential difference between domestic and foreign trade.[1] It is indifferent to a merchant whether he sells to the home market or to the foreigner. In either case he will, in general, be paid by some credit instrument which eventually gives him command over so much "money." Even between cities in the same country it costs something to remit money, just as it does between different countries — the difference is solely one of degree.

When, however, we take countries with different stand-

[1] The ulterior effects of foreign trade on home producers and consumers are discussed in the next chapter (XXVII.).

ards in which there are no limits to the fluctuations in the exchanges, the effects on foreign trade and on general prices of these fluctuations may be more serious. The oscillations of about one penny per pound in the French exchange or of two pounds per hundred in the Australian exchange as the extreme limits have very little effect compared with a fluctuating and uncertain fall in silver from 60*d.* to 24*d.*[1]

[1] *Cf.* Ch. XVII., "On the Interaction of Gold and Silver Prices."

# CHAPTER XXVII.

## THE PURE THEORY OF INTERNATIONAL TRADE AND VALUES.

§ 1. *Statement of the Problem.* The object of pure economic theory is to bring out the action of certain great forces without the complications of practical details. Accordingly, in dealing with the pure theory of international trade, it is necessary, first of all, to simplify the problem by laying down carefully the essential conditions and excluding, provisionally at least, other circumstances.

The distinction between foreign and domestic trade as usually given rests on economic not on political differences, and the basis of the theory is found in the relative mobility (or immobility) of labour and capital in the two cases. For the purposes of pure theory we assume that within any country or nation or, better, any economic or industrial area the mobility of labour and capital is perfect. In other words, capital and labour flow readily to the districts in which their productive power is greatest. If, for example, owing to natural or acquired advantages, one place with a given amount of labour and capital can produce more than other places in that country, the industry will be localised in this favoured place. And, as we have seen, there is actually in every country a tendency to the localisation of industries, and the hypothesis of the theory is approximately true.

A country — considered as isolated — produces a great number of products; it has a variety of extractive indus-

tries — agriculture, mining, fisheries, and the like — and a great variety of manufactures in the broadest sense of the term.

It is assumed further that, as the result of competition and perfect mobility of labour and capital, all the labour and capital will be so distributed amongst these industries as to give the best return. Otherwise some labour and capital will obtain less than the average return and will seek better employment. The moving force is the tendency to equality of real wages and real profits per unit of productive efficiency. The principal elements to be taken into account in comparing the real wages in different employments and places in any country — especially for theoretical purposes — are money [1] and time. If the labourers find they can obtain more money for the same number of hours of labour in the towns, they will migrate thither from the country. Similarly, if the various makers of cloth, for example, find that they can obtain better wages in one district than in others, they will flock to that district. In the same way capital will be attracted or repelled to and from any industry or locality according to the percentage of profit obtainable.

In the markets of any country the same prices prevail for the same quality of goods. If, owing to differences of environment, it takes more labour-time and more capital to put the goods on the market from one place than from other places, the providers in the less favoured place obtain a less money reward per unit of productive power; if they can they shift their quarters, and in any one country (or industrial area) it is assumed that this transference is possible.

But when we consider two or more nations, and contrast them with districts in the same country, the essential difference for pure theory is that between foreign countries capital and labour will not move at all or only with

[1] In any country (or industrial area) for theoretical purposes the value of money may be taken as uniform throughout.

great difficulty; that is to say, there is no mobility or only imperfect mobility.

This, again, is approximately true, at any rate over any short period. The natural resources are obviously attached to each country, and the mines, the cultivated lands, the means of communication, have large capitals sunk in them. Similarly, the buildings, machinery, and most forms of auxiliary capital are incapable of exportation, at any rate without serious loss. Labour, again, is more or less specialised, emigration is difficult, and the labourers even more than capital are *ascripti glebæ*.

Now, it is theoretically possible that, owing to economic conditions, natural and acquired, one country may possess an absolute superiority over another in productive power in all its industries, or for the present purpose it is sufficient to say in all its industries which yield commodities capable of export. By an absolute superiority in productive power, we mean that a given amount of labour and capital with the appropriate natural agents will produce a greater quantity of any kind of export in the more favoured than in the less favoured country. Such, for example, is approximately the case if we compare a backward country with one at a much higher degree of civilisation.

But the great staples of international trade sell for the same prices in the world's markets. Thus the superior country for a certain amount of exports will receive a greater money reward per unit of productive power than the inferior country. It is, however, impossible for the inhabitants of the latter to betake themselves and their capital to the more favoured regions; they must make the best use they can of their powers within their own borders and accept a lower rate of payment than the superior country per unit of labour and capital.

It is, however, possible that when trade is opened with the superior country, the inferior country may gain by a redistribution of its labour and capital within its own borders, and the lower money reward may command more

commodities; similarly, the superior country may give even greater rewards to its producers by a similar redistribution. This is explained by the theory of comparative cost.[1]

§ 2. *The Theory of Comparative Cost, in Terms of Barter.* It is usual to state the theory of comparative cost [2] without the introduction of money and under simple hypothetical conditions. It is assumed that there are two countries only, A and B, each producing the same two commodities only, and both capable of export. Cost of carriage and other impediments to trade in finished products are neglected. Units of productive power are generally taken in terms of days' labour. One of these countries — A — has an absolute advantage over B, in both commodities, but greater in one than in the other. Thus in A, so many days' labour (say 8) (with the appropriate capital and natural agents) will make (say) 8 yards of cloth or 8 bushels of corn, whilst in B the same quantity of labour will make 4 yards of cloth or 6 bushels of corn. If, then, the two countries were to combine their productive forces, A making all the cloth and B all the corn, they would produce together in 16 days 16 yards of cloth and 12 bushels of corn in place of 12 yards of cloth and 14 bushels of corn. If A makes 14 yards of cloth and 2 bushels of corn, the total output (in the two countries) will be the same corn as before and 2 yards more cloth — or otherwise there will be a saving (to the two countries together) of the equivalent of 2 days' labour in A.

If we suppose A has a relative advantage in one commodity only, the argument is more simple. Let 8 days' labour in A produce 8 yards of cloth or 8 bushels of corn, and let 8 days' labour in B produce 4 yards of cloth or 8 bushels of corn. Then if A makes all the cloth and B all

[1] The best statement of this theory on the usual lines is that of Professor Bastable in his excellent monograph on "International Trade." I have adopted a different method for the reasons assigned in the text.

[2] Cf. Bastable, *op. cit.*

the corn, 16 days' labour in each will produce 16 yards of cloth in place of 12 and 16 bushels of corn the same as before. Thus there will be a gain to both combined of 4 yards of cloth or the equivalent of 4 days' labour in A in the production of something else. How this gain is distributed is explained in the theory of international values.

This theory consists of the development of two main principles with variations according to different hypotheses: (1) The particular rates of exchange will be adjusted according to the intensity of the reciprocal demand within the limits of comparative cost. (2) Whatever the rates of exchange, they must be such that the aggregate exports must balance the aggregate imports.

Thus in the example first taken the cloth exported from A must just pay for the wheat imported from B. B must obtain at least 4 yards of cloth for six bushels of wheat, and A must obtain at least 4 bushels of wheat for 4 yards of cloth — the precise rate between 6 and 4 being determined by reciprocal demand.

§ 3. *Criticism of the Barter Theory of Foreign Trade.* The theory of foreign trade, as stated in the last section, shows that if the two countries (under the conditions assumed) combine their productive powers, more can be produced with the same labour or the same amount with less. It takes no account, however, of the fact that this combination must be brought about, not through collective bargaining or a commercial treaty in the interests of consumers, but through the economic interests of the individual producers in the two countries. Accordingly the next step in logical sequence is to show why, under these conditions, the producers of cloth in B and of corn in A should abandon their respective callings. It is submitted that this transference of labour, even in this simple case, can be best explained in terms of money.

The convenience of the introduction of money will, I think, be found still greater as we approach nearer to the

actual complexity of foreign trade by bringing in the various elements at first omitted. If, for example, we suppose that the two countries produce a great variety of exportable products (in place of two only), we may, indeed, take it as axiomatic that in any continuous trade the aggregate exports must balance the aggregate imports. But when we seek to explain how the mass of imports into each country is distributed amongst the producers of its exports, it seems necessary to take some common measure of values. Again, when we bring in the fact that any one "nation" trades not with one another but with many others, we have to introduce some common measure of values for the world's markets.

Further, the principle of reciprocal demand seems also to require for adequate presentation the conception of price.[1]

All demand is demand at a price, and in theory, as in practice, money is the best measure of price.

Again, when we consider the normal values of any continuous trade, we must obviously take into account the conditions of production. If any commodity is continuously exported from any country, the producers must obtain in return the normal earnings current in the country for that kind of work. These earnings are, for most theoretical purposes, best expressed in terms of money in the first place, and it is not generally convenient to introduce at every stage a condensation of the chapter on nominal and real wages.

Finally, it may be fully admitted, as in Mill's phraseology, that "money has little to do in the matter except to furnish a convenient mode of comparing values." In the treatment in the present work of the general theories of value and money, it has always been taken as fundamental that relative prices must be adjusted to relative values. At the same time, however, we must remember that both

[1] In the barter theory, demand is measured in terms of the other commodity. On the difficulties involved in barter, *cf.* Ch. I., §§ 4, 5, *supra.*

theoretically and practically a unit of measurement is often of the greatest importance, and in some cases is not only convenient, but necessary.[1]

§ 4. *The Theory of Foreign Trade, in Terms of Money.* In examining the theory of foreign trade in terms of money, it is convenient to assume that both countries have the same standard and currency, and for the sake of familiarity the English system may be taken.

And to begin with, the same hypothetical conditions may be laid down as in the barter theory. Briefly stated these are: The productive agents (of which labour is taken as representative) cannot be exported, but the finished goods can be exported; cost of carriage is supposed non-existent or negligible; only two countries are taken and each in isolation makes the same two commodities both exportable; the mobility of labour within each country is perfect or labour can be at once transferred from one industry to the other.

So long as the two countries are in isolation, the value of gold may be very different in each or the general range of prices may be very high in one and very low in the other.

As soon, however, as trade is established under the conditions laid down, the prices of commodities in both must be precisely the same. The value of gold (or the general level of prices), in accordance with the principles already examined, will be so adjusted that the quantity of money in circulation (or the supply) will be just equal to the quantity required to do the work (or the demand) at that value or level, taking both countries together.

Relative prices must be adjusted to relative values; if, for example, in one of these countries one commodity takes six days to make, and another one day (the labour being uniform), the price of the former commodity must be six times that of the latter.

It does not follow, however, even after the trade is established and the prices of commodities are equalised,

[1] *Cf.* Bk. III., Ch. II.

that if one commodity takes six days to produce in one country, and another commodity one day in the other country, that the prices will be as six to one.

Owing to the immobility of labour between the two countries, the money wages in each for the same time of the same kind of labour may differ to any extent. In the one country nature (or the "invisible hand" or the environment) may labour with man and in the other against him; in the one country the labour may be highly efficient, in the other degraded and inefficient, but, owing to commercial competition, the finished products will sell for the same price. To take a concrete example, English, American, and Indian wheat sell for the same price (allowing for quality) in the same market, but that price may give very different money rewards to the producers in the different countries. More generally one of the outstanding facts of foreign trade is the difference of money wages in different countries competing in the same markets.

Starting with these provisos and explanations, we have to show, *first*, how the opening of trade will affect the prices of the international staples; *secondly*, how the changes in prices will react on the money rewards of producers; *thirdly*, how this alteration of money rewards will change the direction of industry in each country; and, *fourthly*, we have to examine the effect of this double change in prices and money earnings upon the consuming powers of the producers in the two countries.

It will be found that we need only consider general prices when the trade is first opened. Under the conditions assumed in the pure theory, when equilibrium is established the general level of prices is the same in both countries, and whether, as a consequence of the redistribution of gold, this level is higher or lower in either than it was before is a matter of indifference.

§ 5. *The Same Subject continued.* Assume that two countries, A and B, have the same standard and currency, and that the average rate of wages is 4*s.* per day in both

countries before the trade is opened.[1] Let each country produce both wheat and cloth, but, owing to the greater efficiency of the productive agents or better natural conditions in A, let one average day's labour make a yard of cloth or a bushel of wheat whilst in B it takes two days to make a yard of cloth and a day and a half to make a bushel of wheat. Under these conditions, before the trade is opened cloth will sell at 4*s*. per yard in A and wheat at 4*s*. per bushel, while in B cloth will be 8*s*. and wheat 6*s*.

In tracing the effects of foreign trade on prices and the redistribution of industry, it will be necessary to distinguish three cases — according to the relative magnitude of the two countries.[2]

*Case I.* Suppose that A is very large relatively to B. Then when trade is opened and prices are equalised, the prices in B must fall very nearly to those of A. In general terms, A will dominate the markets both of cloth and wheat, because A must still produce both.

If, however, the price of cloth in B falls to 4*s*. per yard, since it takes two days to make it would give only 2*s*. per day wages. Wheat, on the other hand, at 4*s*. per bushel, since it takes a day and a half to produce, would yield 2*s*. 8*d*. per day. Accordingly — assuming perfect mobility of labour — labour in B will leave cloth for wheat and the surplus wheat will be exported to A.

The increase of wheat in A's markets will tend immediately to lower the price and thus tend to throw some of A's labour into cloth. Again the opening up of B's markets to A's cloth will tend immediately to raise the price in A and thus attract labour from wheat.

Ultimately, however, since A is very large relatively to B, A must still produce wheat for itself and therefore the

[1] This assumption is made for simplicity and seems to be legitimate, as the object is to indicate the relative changes in the two countries after the trade is opened.

[2] The omission of this consideration perhaps accounts for the confusion of Mill's second statement.

price cannot fall below what is sufficient to give the same wages in wheat as in cloth, viz. 4*s*. per day; and it is a matter of indifference to A's producers whether they produce wheat or cloth.

Thus so far the general results are that the new prices are approximately [1] those formerly prevailing in A, money wages in A are the same and money wages in B have fallen, and B has ceased to produce cloth and produces only wheat, in which its relative advantage is greatest, whilst A still produces both.

The comparison of money wages and prices shows at once the gains to the consumers. In A, both being the same, there is no gain. In B money wages have fallen from 4*s*. to 2*s*. 8*d*. per day, whilst cloth has fallen from 8*s*. to 4*s*. and wheat from 6*s*. to 4*s*.

Thus B will now for a day's wages obtain two-thirds of a yard of cloth in place of half a yard, or two-thirds of a bushel of wheat the same as before.

*Case II.* If B is very large relatively to A, then the prices of commodities will approach those of B as the limit, and cloth in A will rise from 4*s*. to 8*s*. and wheat from 4*s*. to 6*s*. Thus wages in A will become 8*s*. per day for cloth and 6*s*. for wheat, and therefore A will only produce cloth. B will go on producing both wheat and cloth with the same prices and rates of wages as before.

In this case the whole gain will go to A, for a day's wages in A will produce either a yard of cloth (the same as before) or a bushel and a third of wheat (in place of one bushel).

*Case III.* Assume that the two countries produce equal amounts of cloth and wheat respectively. In this case when trade is established we may assume, to begin with,[2] that general prices (or the value of gold) will be a

[1] A being large relatively to B, the effect of the redistribution of gold on A's prices may be neglected.

[2] This again is an arbitrary assumption for simplicity, as explained in note on the preceding page.

mean between the former levels and in both countries cloth will sell at 6*s*., the mean between 8*s*., A's price, and 4*s*., B's price, and wheat will sell at 5*s*., the mean between 6*s*. and 4*s*.

In A accordingly wages in cloth and wheat would be in the same proportion, and consequently A's labour will flow from wheat to cloth. In B cloth would give 3*s*. a day wages, whilst wheat would give 3*s*. 4*d*. a day. Thus with these proportions B will produce wheat only.

For a day's wages, 6*s*., A will obtain a yard of cloth the same as before, or one and a fifth bushels of wheat in place of one bushel. B will obtain for a day's wages at 3*s*. 4*d*. more than half a yard of cloth at 6*s*., or the same amount of wheat, viz., two-thirds of a bushel at 5*s*.

Thus in this case A will obtain wheat more cheaply and B cloth, and both will gain.

The assumption, however, that the new prices of cloth and wheat will be precisely the mean between the former prices in A and B, though legitimate in showing the changes in production, requires in this case modification according to the possible changes in demand. In the first two cases the relative prices are fixed by one country, and demand only affects the quantities produced; in the third, reciprocal demand operates not only on the quantities but on the relative prices.

This influence of demand is brought out by applying the principle that whatever rates of exchange are established, the total money value of the exports must just equal that of the imports. For clearness of illustration we may note the first two cases as well as the third.

§ 6. *The Balance of Exports and Imports. — Case I.* Taking the same conditions as before, A dominates the market, and when trade is definitely established cloth sells at 4*s*. per yard and wheat at 4*s*. per bushel in both countries, A producing both commodities as before, but B only wheat. In considering the balance of exports and imports, we must introduce quantities.

Before the trade is opened, let A produce a million yards of cloth by a million days' labour and also a million bushels of wheat in a million days. Let B produce a thousand yards of cloth by two thousand days' labour and a thousand bushels of wheat by fifteen hundred days' labour.

When trade is opened, as already explained, B makes no more cloth. Thus, 2000 days' labour are liberated in B and can be devoted to the production of wheat. If they are so devoted, they will produce one and a third thousand bushels. But one thousand bushels will balance the import of cloth at the prices established.

Accordingly the producers in B may work fewer days or shorter hours, or they may produce the extra wheat and eat it, or they may export it to A in exchange for more cloth; for it is a matter of indifference to A's producers whether they produce wheat or cloth. Finally, the producers in B may combine these modes of enjoying their gain in any proportion according to the demand prevailing for leisure, wheat, and cloth respectively. The demand, however, under the conditions assumed has no effect on prices.

*Case II.* In Case II. B is the dominant country, and the prices of cloth and of wheat become in both countries 8*s.* and 6*s.* per unit respectively, B producing both commodities as before, but A only cloth.

Before the trade is opened, let B produce a million yards of cloth by two million days' labour and a million bushels of wheat by a million and a half days'. Let A produce a thousand yards of cloth by a thousand days' labour and also a thousand bushels of wheat by a thousand days'.

When trade is opened, as already explained, A produces no more wheat. Thus a thousand days are liberated in A and can be devoted to the production of 1000 yards of cloth. If this cloth is exported to B, it liberates 2000 days' labour, of which 1500 devoted to wheat would produce 1000 bushels, thus leaving 500 days over.

But A for its cloth in B will obtain 1000 times 8*s*., whilst the 1000 bushels of wheat will cost only 1000 times 6*s*. Accordingly the producers in A may work fewer days or shorter hours and only export enough cloth to B to buy 1000 bushels (viz. 750 yards), or they may make the extra cloth and wear it, or they may export it to B and obtain in exchange more wheat; for it is indifferent to B's producers whether they produce wheat or cloth. Finally, the producers in A, like those in B in the previous case, may combine these modes of enjoyment according to the demand, the demand, however, only affecting the quantities produced and not the prices.

*Case III.* In Case III. the countries are equal and produce equal quantities of cloth and wheat, though at different costs. Let the amounts be 1000 yards and 1000 bushels respectively, the cost in A being 1000 days for each and in B 2000 days for cloth and 1500 days for wheat. When the trade is opened, as before explained, A produces cloth only and B wheat only, and the prices, to begin with (through the equalisation of the value of gold), are a mean between the former prices, namely, cloth 6*s*. per yard and wheat 5*s*. per bushel.

Let A export to B 1000 yards of cloth at 6*s*. per yard. This liberates in B 2000 days' labour. But with 1800 of those days B can produce 1200 bushels of wheat, which, at 5*s*. per bushel, just balance A's export of 1000 yards of cloth at 6*s*. Thus so far A gains 200 bushels of wheat and B saves 200 days of labour.

It is, however, quite possible that if 1200 bushels of wheat are offered in A's markets in place of 1000, the price will fall, and the price will fall still more if B sends to A the produce of 200 more days. Again, if we look at A's production of cloth, if she is to produce more than 1000 yards for B (which she can do with the labour liberated from wheat), she must work longer hours or more days. Thus wages in A will rise and also the price of cloth. In B, on the other hand, wages will fall with the fall in wheat.

In this case, then, reciprocal demand does affect the relative prices of cloth and wheat and thus also the wages and the consuming powers of the respective producers, and it is possible that one country may make the whole gain. The limits to the rise in cloth and the fall in wheat are given by the conditions of production in B; if the prices are such that B's producers can obtain as good wages by making a yard of cloth in two days as by making a bushel of wheat in a day and a half, B will again produce its own cloth. This seems to be the real meaning of saying that the rate of exchange will depend on the intensity of the reciprocal demand within the limits of comparative cost.

§ 7. *Effects of Diminishing and Increasing Returns.* Hitherto the transference of labour from one industry to another has been supposed to have no effect on its efficiency per unit. In the first two cases this may be taken as approximately true of the large and dominating country, but not of the lesser. In the third case it cannot be assumed of either country.

In the first case, B transfers all its labour from cloth to wheat and is supposed to produce altogether more than twice as much wheat as before. But it is clear that if the law of diminishing return comes into play, the labour liberated from cloth in B will not produce so much wheat proportionately, and B's gain will be so much less than at first supposed. If the result of the extended cultivation is that at the margin it takes in B two days (instead of one and a half) to produce a bushel of wheat at 4*s*., labour will earn as much in making a yard of cloth at 4*s*. in two days. Just before this limit B would have the same amount of cloth and wheat as before — exporting 1000 bushels of wheat and importing 1000 yards of cloth instead of making both for itself.

It might then be supposed that B would neither gain nor lose, the real national income being the same. But another factor in distribution must be introduced, namely, economic rent. Under the new conditions a larger pro-

portion of this national income would go to the landowners. Wages would fall to 2*s*. per day in B, and thus a day's wages would command only half a yard of cloth at 4*s*. per yard the same as before, or half a bushel of wheat at 4*s*. per bushel in place of two-thirds. Thus the labour of B would suffer a loss — labour would obtain less and economic rent more of the same real national income.

In the second case, when B is the dominating country, after the trade is established A turns all its labour to cloth, the price of which is determined by B at 8*s*. per yard. We may assume that when A doubles its production of cloth, the law of increasing return may come into play, and it will take A less than an average day's labour to make a yard of cloth. Thus wages will rise above 8*s*. per day and will command more than a bushel and a third of corn at 6*s*., and the gain of A will be greater than given in the first approximation.

In the third case, we must assume that both laws are in operation in both countries, as the proportion of labour transferred is large relatively to the whole.

As A transfers its labour from wheat to cloth, the marginal yield to what is left in agriculture increases, and also the average yield of the whole labour devoted to cloth. The productive power of A's labour increases in both industries, and, owing to the recession of the margin in agriculture, less of the national income goes as rent. Thus the real wages of labour in A experiences a twofold rise.

In B, on the other hand, the reverse is the case; the marginal yield in wheat would diminish, and so also would the average yield in cloth (if B were to continue to make any cloth). In B also more of the national income goes as rent.

B's only compensation would be in obtaining more cloth than before for the wheat exported. If, however, A still produces wheat on its better lands, and its productive powers in cloth and wheat (on the margin) have remained

relatively the same, cloth will sell at the same price per yard as wheat per bushel. Accordingly, for every bushel exported B will only obtain one yard of cloth. If, then, the 2000 days liberated in B from cloth only produce 1000 bushels owing to diminishing return (instead of one and a third thousand bushels, the former rate), B will only obtain 1000 yards of cloth from A. And although the real income of B is the same as before, viz., 1000 yards of cloth and 1000 bushels of wheat, a larger proportion will be absorbed in rent and real wages will be less. If, owing to the action of diminishing return, the extra labour yields less than 1000 bushels, B will obtain less cloth than before and the total national income will be less.

It may be objected that if the marginal yield to labour in wheat is one bushel for two days, the previous days must yield more, and therefore the yield of the labour liberated from cloth (2000 days) cannot be less than 1000 bushels — or otherwise it would be employed in cloth. This, however, takes no account of the reduction of the average yield to labour in cloth as the production is diminished.

§ 8. *More Commodities.* Let us now assume that the two countries produce a variety of exportable products, the other conditions still remaining the same, namely, uniformity and mobility of labour within each country, and no cost of carriage between the two.

Suppose that one country, A, is very large relatively to the other, B. After the equalisation of prices, on the opening of trade we may suppose that if B continued to make all the commodities which she did before, there would be differences in the returns to labour (as explained in the simpler case first taken). But since the labour is uniform and the mobility perfect, all the labour of B will flow to the industry which yields the highest money wages. The surplus product will be exported to A and other commodities formerly made in B will be imported. As before, B will make all the gain, the gain being estimated by the

increase of consuming power or diminution in the hours of labour.

A will still produce the same variety of products as before, whilst B will produce the commodity (or commodities) in which her relative advantage is the greatest.

Suppose that the commodities which B exports are such as A cannot make for herself. In this case the displacement of A's native produce shows that A's consumers also make a gain in utility.

If the two countries are relatively of the same magnitude, then we may suppose that before trade is opened (after allowing for differences in the value of gold) some prices in B would be above, some equal to, and some below those of A. When the trade is established, B would export the articles that are dearest in A, and import the cheapest. The existence of articles of equal price in both countries makes it possible to adjust the balance of trade by taking in return any amount of those articles that may be requisite. Thus the play of reciprocal demand is limited.

The nature of this limitation is best seen by considering the case taken by Mill of an improvement in an export (say) from B to A — other things remaining the same. Mill argues that the demand for the export in A may increase just in proportion to the cheapness, or more or less. In the first case the balance is unaltered; in the second the balance turns against A, and she must offer her exports on cheaper terms to induce B to accept them in return; whilst in the third case B, through offering more than A is willing to take at the new price, is obliged to lower this price and thus obtains A's exports on less favourable terms. This last case is the most interesting and paradoxical, as it seems to show that a country may lose through improvements in machinery and the like, that is to say, may obtain less foreign goods than before for the product of the same labour.[1]

[1] Compare Edgeworth, *Economic Journal*, March, 1894, p. 40.

If, however, we introduce money, this case is seen to work out differently. Mill's argument implies that the labour of B must be employed to the same extent as before in the improved export, although the money value of the product has fallen and with it the money wages of the producers. It is clear, however, that with mobility of labour the surplus labour will be transferred to other industries which yield the average wage.

Suppose that before the improvement B exported to A 5000 yards of linen, costing £1000 and imported in return 1000 yards of cloth. Let the price after the improvement fall from 4*s.* to 2*s.* per yard, and at this price let A take 6000 yards or a total of £600. The £400 of labour set free in B can make other exports to pay for A's cloth and so far the produce of the same labour in B will obtain the same imports from A as before. But if B exports to A commodities formerly made by A, some of A's labour will be displaced and make other things.[1]

Similarly, we may suppose that the consumers of linen in B demand (as in A) £600 in place of £1000. Thus in B labour is set free to make other things to the extent of £400. Accordingly, owing to the improvement, both A and B can consume more linen and also more of other things.

§ 9. *Cost of Carriage and Other Impediments to Trade.* If we take up the logical position[2] that the act of production is not complete till the commodity is in the hands of the consumer, it is clear that cost of carriage and other impediments to foreign trade diminish its volume and variety, but make no essential difference in its character.

The general effect of impediments is to add to the price at which a commodity can be delivered in a foreign country. To take the simplest case, the foreigner must bring to the home market some salable commodity; he must employ

[1] Professor Edgeworth assumes not only that the same labour as before is devoted to linen, but that no linen is consumed in B.

[2] Explained in Book I.

the proceeds to purchase his export and he must take back the export. Suppose that in A cloth is selling at 5*s*. per yard and linen in B at 5*s*., and that the cost of carriage between the two is 1*s*. per yard. Suppose that the manufacturer in A can sell cloth in A at 5*s*. and in B at 6*s*. (*i.e.* 5*s*. plus cost of carriage), he would still not export to B unless he could get back his 5*s*. for nothing. This he could do if he could buy linen in B for 5*s*. and sell it in A for 6*s*. In this case the consumer in each country would pay for the carriage of the import, and this is no doubt usually the case when a commodity is consumed largely at home and also exported to a considerable extent. But if the exporter of cloth from A to B were to sell cloth at 5*s*. and could sell the linen taken in return at 7*s*. in A, he would be in an equally good position. In this case A would pay the double cost of carriage and in the converse case the double cost might fall on B. The actual distribution of the cost in any case will depend on the reciprocal demand and the conditions of production.[1]

In some cases it is well known a commodity may be sold for a time more cheaply to the foreigner than to the home consumer; but this is to be ascribed to the manipulation of a complete or partial monopoly.

In the same way the real incidence of a tax on exports or imports is indeterminate unless the conditions affecting demand and production are known.

§ 10. *More Countries.* The introduction of more countries also makes no essential difference in the theory.

If we take into account the fact that in general one country trades not with one other only, but with the rest of the world, and that there are various sources of supply for most commodities, then in general any one country or industrial area is small relatively to the rest of the world. Thus the price of any great staple of international trade depends on the demand and supply in the world's markets.

[1] For full treatment of this case *cf.* Prof. Sidgwick's *Pol. Econ.*, Pt. II., Ch. III.

If this price does not give to the producers of any portion of the supply the normal earnings of the country, that country will cease to export the commodity and, conversely, if any country obtains more than normal earnings, it will increase the supply. The contraction in one case will be neutralised by the expansion in the other. If the increase of supply is insufficient to lower the price, the favoured country will tend to produce that commodity only, and the producers can work less or the consumers consume more, or both.[1]

§ 11. *The Effects of Differences of Wages in Different Employments.* We may now take into account the fact that wages throughout any country are not uniform, but vary according to the various conditions already examined. If we still assume that within the country industrial competition is perfect, there is no essential difference in the theory. Instead of uniform wages, we must read uniformity of net advantages. When the foreign trade has been established, any industry carried on in the home country must yield the average rate of earnings after allowing for variations in intensity and the like. If the natural rate in manufactures is double that in agriculture, this relative difference must be preserved if both industries are to be continued.

Suppose, however, that the higher wages of various groups of labourers are mainly due to the causes classed as artificial, or that before foreign competition intervenes the prices of the products are subject to the influences of partial monopolies of various kinds. In this case the introduction of foreign goods may lower prices and consequently wages — and the fall in prices may not be sufficient to compensate the fall in wages.

Suppose, for example, that a country which has great natural advantages for the production of agricultural produce and raw materials suddenly abandons the protection

[1] As in the cases first taken.

ist system under which the manufactures of its towns have flourished to a moderate extent. The introduction of foreign goods at very low prices may reduce wages in the towns even below the rate obtainable in the country.

On the other hand, the extension of a foreign market may raise wages in the industries which provide the exports, and for a time give monopoly rates.

## CHAPTER XXVIII.

### THE THEORY OF FOREIGN TRADE (*continued*).

§ 1. *The Possible Loss to Labour through Foreign Trade further considered.* The possible loss to the labourers of a country through the opening up of foreign trade may be shown more simply and more directly if we make the further assumption that one group of labourers earns higher wages than another group.

Suppose, then, that in A wages per year in manufactures are double (reckoned in money) of what they are in agriculture, and that the labour of the country is equally divided between the two industries. Taking account, as before, only of the labour bill, we may assume that the annual income of the manufacturers is £ 2,000,000, and that of the agriculturists £ 1,000,000, these sums also denoting the value of the annual produce in each case.[1]

Assume, further, that both manufacturers and agriculturists require practically the same amount of food and agricultural produce generally. The manufacturing classes will thus spend half a million on food and one and a half millions on manufactures, and the agriculturists half a million on each.

Now suppose that trade is opened with other countries, in which the average price of agricultural produce is the same as in A, the country under consideration, but the average price of manufactures is something less than one-half. Prices in A must fall to the same level, and the

[1] That is to say, under the supposition made, the whole price of the product goes to labour.

manufacturers in A would earn something less than £ 1,000,000 in place of £ 2,000,000. In this case they would be driven into agriculture. But if double the labour is given to agriculture, there will not be double the return, the law of diminishing return being supposed to be in operation. Suppose, then, the agricultural produce only amounts in value to one and a half million pounds — this again being near the total money income. If, then, both classes consume the same amount as before, — the produce being of the nature of necessaries, — there will only be half a million pounds to purchase manufactures from abroad. And even supposing that these manufactures are something less than half the price, the country on the whole would obtain only half the quantity it did before (the nominal value before being £ 2,000,000).

If the price of agricultural produce, being governed by the world's markets, remained the same whilst the produce per unit of labour was less (as is assumed above), wages must also be less,[1] and it may be thought that so far labour would not be attracted from manufactures. It may also be argued that if labour which previously produced £ 2,000,000 now only produces £ 500,000 (or $\frac{1}{4}$), as manufactures are only $\frac{1}{2}$ cheaper A will continue to produce them.

Assume, then, that the country still produces the same quantity of manufactures, but sells them at half the price, viz., £ 1,000,000. It is not necessary that the foreign goods should be actually imported — the fear of competition, as in other cases, is sufficient to lower the price. In this case the manufacturers, if they bought the same corn, would have only half a million to spend on manufactures in place of one and a half millions, and although the average price was one-half, this would be so much less than before. The agriculturists, however, would get more manufactures in proportion to the fall in price and, on the assumption made, just double of the former amount.

[1] The difference would be transferred to economic rent.

It is clear, however, that this relative rise in the real wages of agriculture and the relative fall in manufactures would tend to displace labour in the way assumed at first.

§ 2. *A More General Statement of the Argument.* That the labourers of a country can possibly lose by any extension or opening up of foreign trade is so much opposed to the popular [1] view of English political economy that a more general statement of the principles involved seems desirable.

According to the popular view, any loss to any particular class of workers owing to the want of employment can only be temporary and as soon as they are absorbed by other industries (as, it is assumed, they must be), there will on the whole be an increase in real wages or in the consuming power of the people. The productive power of the country, it is supposed, remains the same as before, but for part of its produce now exported it obtains, in the shape of imports, more commodities than it could formerly produce for itself.

That such may sometimes and even generally be the result of foreign trade under the conditions assumed, I do not deny; all that I contend for is that theoretical exceptions are possible.

It may happen that the productive power of the country is diminished more than the importation of commodities is increased.

Suppose that before the trade is opened a country has occupied and cultivated all its land and that any further

[1] Most English economists, however, including Adam Smith, Mill, and Ricardo, have admitted theoretical objections to free trade. Compare the opinion of McCulloch, who is generally regarded as ultra-Ricardian. ". . . And hence the policy of checking by duties or otherwise any great extension of a business that might involve perilous results. If it be said that this would be interfering with the freedom of industry, we answer that that freedom is not in itself either good or bad. . . . And when such cases occur it is the duty of government to make their policy square with the *salus populi* by limiting that freedom which might, if unrestrained, be eventually injurious." — *Wealth of Nations* (McCulloch's edition), note XXV., p. 601.

produce can only be obtained at an increasing cost. Suppose also that its manufactures, compared with those of the foreign country, are produced at a very great disadvantage, whilst the food is produced at the same cost, the basis of comparison being the number of days' labour required.

When the trade is opened and established, both food and manufactures must sell at the same price (after allowing for carriage) in both countries. There will thus be a very heavy fall in the price of manufactures in the first country and a corresponding fall in money wages. This we may assume because we suppose that manufactures can be increased indefinitely in the second country at the same or even at a decreasing cost.

As a consequence, the manufacturers in the first country will be driven into agriculture, and they will have to sell their agricultural produce at such a price as to undersell the produce of the farmers in the second country. That is to say, wheat, for example, must be sold at a somewhat lower price than before. At the same time, however, it is produced at an increased cost, and this sale at a lower price is only possible if we assume a corresponding fall in wages, or, rather, it involves a corresponding fall in wages. It is possible that after giving the total population the same food as before, there is little corn left over for export, that less manufactures will be obtained than when the country produced them for itself, or, to obtain the manufactures considered as necessary, the people may be obliged to stint their food.

The question may be asked: Why should the manufacturers migrate from the towns to the country with such disastrous results? The simplest answer is given in the extreme case when, for the manufactures they make, they may not be able to obtain at the prices established by foreign competition enough necessaries for a minimum of subsistence.

§ 3. *The Same Subject continued.* Hitherto, nothing has been said respecting the influence of profits. Under

modern conditions of industry, however, it is the rate of profit obtained that determines the immediate cause of trade. Suppose, owing to the advent of foreign competition, the price of any commodity suffers a severe fall, the first effect is on profits. The fixed charges obviously cannot be reduced, and a reduction of wages, especially with strong labour combinations, is extremely difficult. If the price of the commodity fails to recover, it may be practically impossible to reduce wages and other elements of cost sufficiently to give an adequate remuneration (or retaining fee) to capital. It is true that a large part of the capital may be specialised and fixed; but unless a fair profit is obtained, it will not be renewed or replaced, and the industry will gradually waste away.

Labour, again, is, as a matter of fact, specialised and fixed in various industries and the wholesale immediate transference from one to another, which is the foundation of the pure theory, is in practice more slow, imperfect, and onerous than is the transference of capital. Thus, the supposition that labour formerly devoted to manufactures can be transferred to agriculture (or conversely) is only true if a considerable time is allowed. It is then possible that an industry may be so affected by foreign competition that the amount of labour and capital lost by the depression may be greater than the amount transferred to other industries in which relatively the country has a comparative advantage.

§ 4. *On Prices in the World's Markets.* In considering the actual effects of foreign trade in any particular country, it is necessary — just as in the foreign exchanges — to set that country on the one side, against the whole commercial world on the other. England and Germany, for instance, cannot trade together and by the export and import of the precious metals adjust and readjust their levels of prices independently of the levels of prices in other countries or of the whole commercial world.[1] Whether or not England

[1] See Ch. XXVI.

will send any cloth whatever to Germany (or how much she will send) depends partly on the price obtainable in Germany and partly on the price obtainable in other markets. These prices, again, depend partly upon general and partly upon special and relative causes, and the general causes operate throughout the commercial world.

The grave importance of this consideration will be evident from comparing the position here taken with the following passage from Mill.[1] "It is no sufficient ground of apprehension to the English producers to find that some other country can sell cloth in foreign markets at some particular time a trifle cheaper than they can themselves afford to do in the *existing state of prices*[2] in England. Suppose them to be temporarily unsold, and their exports diminished; the imports will exceed the exports, there will be *a new distribution of the precious metals, prices will fall*, and as all the money expenses of the English producers will be diminished they will be able (if the case falls short of that stated in the preceding paragraph)[3] again to compete with their rivals."

That foreign cloth may for a time undersell English cloth, owing to various temporary conditions, every one will admit, and also that the English exporters may again recover their markets when these conditions have passed away; but to suppose that the recovery will take place by a general fall in the level of prices in England through the export of the precious metals in lieu of cloth is to mistake altogether the influence of general and special causes on prices. It is easy to bring the issue to a *reductio ad absurdum*. Suppose at the same time that the price of English cloth is above that of the foreign cloth, the English and foreign prices of some other competing export, say linen, are exactly in the reverse position. In this case a balance will be due from England on account of the

[1] Bk. III., Ch. XXV., § 1.

[2] The italics are mine.

[3] The reference is to the doctrine of comparative cost.