CHAPTER III

THE FALLACY OF THE DEFLATION THEORY.

§ 1. **The two chief theories on the present crisis.** One of the characteristics of the present situation is the circumstance that, unlike the times of inflation when people got rid of money to acquire as many goods as possible, now they are getting rid of goods (or their share in the possession of property, such as stocks and shares) in favour of the possession of money. This proceeding created the wrong impression that we have been experiencing deflation of gold or money. Deflation of gold or deflation of money is to-day really identical, since even those countries which do not possess a gold standard (a pure gold currency), possess currencies, the relation of which to the gold American dollar or the gold franc is fixed by law or at any rate stabilized. The changed value of gold would therefore have to influence their whole monetary system and thus indirectly also the prices of all commodities, in other words the effect would be the same as if it were a pure money deflation.

The *origin of the deflation theory* thus lies in the feverish haste with which people are getting rid of goods at all cost in order to acquire money instead. The conclusion from this is obvious: if running away from money is the criterion of inflation, then the reverse process, viz. running away from goods to money, is evidently a sign of deflation. Nevertheless I am of the opinion that this conclusion is incorrect. As I have explained in the previous chapter, I think that this crisis is due to *underconsumption,* caused partly by a lack of consumption capacity (especially on the part of the unemployed), partly by a lack of will to consume (on the part of all anxious, careful and diffident people, and of those who bide their time and tarry). This lack of will may, of course, in course of time turn into a real lack of consumption capacity.

I see the origin of the crisis *not in the appreciation of money, but in the depreciation of goods*, due to a lack of demand for goods on the part of those who ought to, but cannot consume, and on the part of those who could, but do not want to consume. This horror of consumption is, next to the depreciation of goods, the most characteristic symptom of the present crisis.

This controversy between the theory of inadequate consumption (underconsumption) and that of deflation, upheld even by some eminent authorities, is of such an importance from the point of view of remedies, that we must devote to it a longer space in this chapter than appears compatible with the rest of this book.

All theories concerning the present crisis may, on the whole, be reduced to two chief types, according to the way in which they explain the chief symptom, viz. the decline of prices. We measure the price of things in money, the price being the sum of money at which a thing is valued. If prices decline, it may either be due to the appreciation of money, or to the depreciation of commodities. One theory thus explains the outbreak of the crisis by causes originating on the part of commodities, the other by causes originating on the part of money. All theories, including those which ascribe the crisis to tariff barriers or international indebtedness, are agreed that the crisis broke out in consequence of the disturbed equilibrium between production and consumption, and therefore all may be classed into one or the other category. Thus for instance tariff barriers cause a slower international exchange of goods and therefore lead on one hand to overproduction and difficulties of marketing, on the other hand to underconsumption. International debts and reparations cause a reduced standard of life of some nations in favour of others, and may lead to currency difficulties, necessitating restriction of credit facilities and other measures, which may lead to an appreciation of currency. Excessive extension of credit again leads to excessive capitalization and investments, and thus to relative overproduction through excessive use of machinery, as well as to underconsumption in consequence of unemployment. It will be seen therefore that however great may be the number of theories on the origin of the present crisis, the number of main types is limited, and this circumstance simplifies greatly the aetiology of the crisis. At the same time these two chief types or categories of theories and causal complexes, on which they are based, are much more widely divergent than may be assumed. The symptoms, corresponding to this or that typical causal complex, are almost identical, so that at first sight they are hardly distinguishable from each other and their resemblance therefore leads to confusion and misunderstandings. You may say that it does not matter whether we look at the question this way or that, since low prices mean greater purchasing power of money, and that it does not matter much whether this phenomenon is due to appreciated money or depreciated goods, as it comes to the same thing in the end. Nevertheless both these complexes are not only diametrically opposed in theory, but they also point to totally different practical solutions, as we shall show later on.

§ 2. The essence of both theories and the distinction between them. The symptoms which are especially misleading, as they are common both to the process of deflation and to the crisis of consumption, are the following:

a) *The sinking tendency of prices,* implying the increasing purchasing power of money and increasing value of debts.

b) The *general way* in which the decline of prices affected the whole market (for had it affected only a few trades and industries, we could conclude from it only on the increased production of those industries).

c) The outbreak of a *genuine economic crisis* (difficulties of production) which is spreading and changing into a financial and budgetary crisis. This sympton also seemingly indicates that money deflation is the real cause of the crisis, because the general — although erroneous — idea prevails that prices may drop only in two cases: either in consequence of greater production or in consequence of appreciation of the money unit. If prices were sinking only in consequence of greater production without simultaneous deflation (appreciation of money), the result would be greater prosperity and not a crisis. And a crisis due to deflation would not begin by consumers refusing to buy goods, it would not be a crisis of marketing. But the present crisis began with marketing difficulties.

It is true that many countries have lately adopted measures which have a distinct deflation character (the raising of the rate of discount, reduction of wages and of salaries of public servants etc.). But these measures have nothing in common with the causes of the crisis, they apparently only became necessary and they do not alleviate, but on the contrary they only aggravate the crisis. It is also true that money to-day has a greater purchasing power in relation to commodities, but this is not due to the appreciation of money (deflation), but to the depreciation of goods due to abundant supply and restricted demand. If nobody wants goods, the seller must induce or try to induce customers to buy them by reducing prices. On the other hand psychologically it is natural that people are apprehensive of buying goods offered for sale too eagerly.

As to the popular notion that the crisis was caused by an undue accumulation of gold (whereby it is implied that the Banque de France and the American Federal Reserve Board are to blame), it is a fiction. Not the unequal distribution of gold, caused by this hoarding, but the unequal distribution of income, culminating in the complete deprivation of the unemployed of all their income, is the chief source of the evil. If any blame attaches to America, it is not because she hoarded gold, but because she adopted methods leading to dynamic inequality (see p. 25), above all the practice of precipitate rationalization.

On the other hand there are several symptoms in which both theories differ and several reasons which substantiate our theory and prove the fallacy of the deflation theory:

a) Had the crisis been caused by the appreciation of gold, there would be no explanation for the fact that the starting point of the crisis was the decline of consumption, leading to marketing difficulties and to the fall of prices. If prices of goods had gone down in consequence of such an appreciation, incomes would have remained at first unaffected, they would have had a greater purchasing power, and that would have led to a *greater demand* for goods, not to a smaller demand, as we have seen. Earnings (wages and salaries) could not of courses remain unaffected for long, but during the first stage this increased demand would have undoubtedly taken place.

As a matter of fact prices of goods have declined, but no increased demand followed, on the contrary demand declined as well. It declined in consequence of a partial or total loss of consumption power of a great many consumers (through unemployment, losses on the Exchange etc.), and in consequence of a voluntary restriction of consumption under the influence of panic, fear and diffidence.

b) Deflation could have taken place either by the *appreciation of money* (in countries with an unstabilized currency), and then it could be only local, or through the *appreciation of gold* which, in the opinion of some advocates of the deflation theory, resulted from the accumulation of gold in the vaults of certain banks of issue, or, according to others, from their credit policy. As gold is nowadays almost totally excluded from free circulation, both these arguments really come to the same thing, for gold can only influence economic life indirectly (through a liberal or a strict credit policy). Deflation would have therefore led to a very restricted granting of credits (credit stringency), which is not supported by facts. At all events we would have the possibility of alleviating the crisis by an appropriate policy of the banks of issue, which could be easily carried into effect. The reduction of the rates of interest has, however, so far failed completely to revive trade.

Moreover, the unequal distribution of gold should have led to credit stringency above all in countries with small reserves of gold, but as a matter of fact the very opposite happened for the crisis started in the United States. I do not want to allege thereby that the unequal distribution of gold is without any importance, or that it has no detrimental effects. From the point of view of monetary policy it may be very important when a run takes place on the reserves of gold and foreign bills of a country, as it happened in England last year. I only maintain that the accumulation of gold in certain banks of issue does not supply the key to the situation and does not explain the origin of the crisis.

c) In countries with a *silver currency* the crisis would have to pass more mildly than elsewhere. This also did not happen.

d) The crisis would have to break out in countries with a *strict credit policy,* but it broke out in the United States which did not pursue such a policy. The stemming of speculation is not the same as a deflation credit policy.

e) Deflation could have been only incidental, *not intentional.* Nevertheless it is hardly comprehensible why it should have proved so difficult to arrest it. We know from experience that every attempt at deflation has always had a definite plan, and when this plan had proved too extensive, the deflation process was arrested. The present alleged deflation, however, cannot be arrested and will not be arrested, until people cease to be influenced by panic and general diffidence, and until unemployment is suppressed, in short until consumption is stimulated and raised. It cannot be raised as long as the present panic exists and as long as people are able to continue to restrict their consumption. This bottom limit of the consumption of those who refuse to consume could have almost been reached, if the number of those who cannot consume had not meanwhile increased (through losses on the Exchange, bankruptcies etc.). The dynamic inequality of income is still growing and demanding fresh sacrifices.

f) Had the crisis been caused by the appreciation of gold, prices would have sunk *symetrically,* for the mutual relation between the values of commodities would have been affected by the changed relation between gold and these commodities. But the decline of the price level was not symmetrical. Prices fell according to the extent in which consumption of this or that particular commodity declined. Exceptionally also other influences were at work (such as superabundant crops), but these consisted also in a change of value on the part of goods, not on the part of gold or money.

But let us turn back to the theoretical analysis of this problem. Theoretically speaking, the two types of causal complexes, to which we alluded above, correspond to two different conceptions of theory: Causes which lead to changes in the value of money, are embodied in the *deflation theory,* causes which lead to changes in the value of goods, are embodied in the *theory of underconsumption.* The deflation theory maintains that the monetary unit has appreciated. But the appreciation of currency would have to find expression in one of the systems of money mechanism (i. e. in the system of incomes, or of prices, or of yields), for instance in the system of prices through a general sinking of the price level. In view of the mutual relationship between prices, yields and incomes (see below under § 3), which I call collectively "money mechanism", prices decreased in consequence of appreciation of the monetary unit cannot remain isolated on a lower level, inasmuch as a sinking of the level of incomes and of yields must follow. The deflation theory is concerned with the question of how to accelerate this process of adjustment which is taking place and which involves an instability of the whole money mechanism and an economic crisis. In other words *the remedy according to the deflation theory lies in the reduction of incomes* (i. e. of wages and salaries) in accordance with the lower prices, for the yields (proceeds) sink simultaneously with the prices.

On the other hand the *theory of underconsumption* teaches that prices have fallen, not because the monetary unit had become appreciated, but because normal consumption became unexpectedly restricted in consequence of the exclusion of a great number of people from the ranks of consumers (through unemployment etc.), as well as in consequence of the unwillingness of some to consume (for psychological reasons) as much as it was in their power to do, and of the incapacity of the rest to consume more than they consume already (owing to a full saturation of their wants). Underconsumption has the same effects as relative overproduction: it implies the existence of more commodities than can be consumed. The natural outflow from the accumulated stock of goods by means of sales is becoming stopped up, and the remedy is sought in the reduction of prices. The movement (decline) of prices thus begins on the part of goods, not of money, but *the change need not find expression in the whole money mechanism.*

Both these theories thus recognise in the *sinking of prices* the main characteristic symptom of the crisis. But the explanation of this phenomenon and the remedy are in both cases totally different. If the monetary unit becomes appreciated, this appreciation must find expression in the whole money mechanism, i. e. not only in prices and yields, but also in incomes. The remedy consists in the acceleration of this process of adjustment. It is not therefore a wilful reduction of incomes, but only an open and anticipated realization of a reduction which would have to come in any case and which for the time being remains hidden. On the other hand the theory of underconsumption sees in the sinking of prices only an isolated phenomenon and denies the necessity of adjusting the whole money mechanism, i. e. of reducing incomes (yields must of course show a sinking tendency in view of the lower price level), wishing to find a remedy only for this isolated phenomenon as such. If underconsumption were caused by the decimation of mankind (through war, plague or some other epidemic), the deficient consumers could hardly be replaced. But as it was caused by faulty organization and by a mere temporary exclusion of existing consumers from the opportunity to consume, the most efficacious remedy — according to our theory — must consist in an effort at raising the prices and thereby the yields by stimulating and *reviving the purchasing and consumption power* of the unemployed and of all reluctant consumers.

The profound difference between both these theories is obvious. The symptoms may be the same, the proposed remedy is totally different. The deflation theory advocates a reduction of incomes in order to accelerate the process of adjustment between the three systems of money mechanism, whereas the theory of underconsumption maintains that this procedure must only further aggravate the crisis, and that the consumption power must on the contrary be stimulated by a multiplication of small and medium possessors of income (wageearners) in order to revive the marketing possibilities of trade and thus to raise the price level and to improve the yields. The remedy is in both cases diametrically opposite.

The world situation unfortunately shows that the solution has so far been sought in both directions simultaneously, according to the inclination which Governments showed towards this or that theory. The result is complete confusion. But this question is of such significance that the whole complex must be examined in detail to enable the general reader to form an unbiased opinion of his own.

We shall first of all examine critically the *theory of deflation.* The greatest drawback to this theory is the fact that its adherents take its justification and its necessity for granted on ground of the existing symptoms, without going at all into the question of its possibility. They assume that the existence of certain symptoms is a sufficient proof of its correctness. They do not pay any attention to the question of the origin of the crisis, nor do they inquire into the question whether the altered exchange value of gold was caused by the conditions of production of this commodity, necessitating a change of all values expressed in gold, or whether it was caused by certain measures which artificially raised the value of gold. They do not examine whether a change in the production of gold really did occur, or whether an artificial appreciation of gold is at all practicable, and if so, under what conditions. We must therefore try to examine all these aspects of the question, as well as inquire into the possibility of money deflation through other means than through the appreciation of gold.

§ 3. **The theory of deflation.** In order to ellucidate the problem of the plausibility of the altered exchange value of money, we must clear up the meaning of "changes on the part of money", i. e. of the processes of inflation and deflation.

a) The system of money mechanism, i. e. the relation of incomes to yields and prices.

The meaning of inflation and deflation will become clearer, if we examine first of all the relation in which certain economic quantitative systems, expressed in terms of money, stand to one another, for these relations cannot be upset arbitrarily, as these three systems or structures form one organic whole.

Productive undertakings produce things destined to satisfy human wants and called goods or commodities. The aim of these activities is the achievement of maximum yield in terms of money (maximum profit). The *yield* (net product of undertaking) represents the difference between the value of the commodities produced and the value of the goods consumed during the process of production (raw materials, fuel, wear and tear of machinery etc.).

This yield is divided up between the various agents of production, viz. into *earnings* of labour, *interest* of capital, and lastly the *producer's surplus,* or rent, of land and of other differential advantages for production (profit, or producer's earnings). At all events this yield thus flows into households in the form of *incomes,* and these incomes again serve to purchase the commodities produced and thereby they form and regulate the *prices.* The aggregate of all the commodities produced expressed in terms of money (i. e. the aggregate yield of undertakings) is the true source from which flow the demand prices for all these commodities, and therefore for all the agents of production used in making them. The aggregate of all prices of commodities purchased cannot be larger than the aggregate of all incomes. To put the same thing in other words, the *national income* is at once the *aggregate yield* (net product) of, and the sole *source of payment* for, all the agents of production within the country. The aggregate of prices of all commodities passing through the market is therefore equivalent both to the aggregate yield and to the national income. This national income is broken up into fragments, which, in the form of prices, serve to purchase commodities.

The systems or structures of yields, incomes and prices are therefore interdependent and form one organic whole, so that the change affecting one structure, in consequence of the altered value of money, must necessarily affect the numerical (nominal) level of the other two structures. For instance if *incomes decline,* prices must decline too, if we assume that the same quantity of commodities is produced and is to be consumed in the market, for if the total of incomes is smaller, the total of the prices obtained for the commodities in exchange for these incomes must be proportionately smaller too. If prices decline, then obviously the yield must decline too. In the same way, if *prices decline* first, yields must in time diminish, and consequently incomes too, for the undertakings cannot for long continue to pay the same wages and salaries as before.

Smaller profits (producer's surpluses) and smaller earnings at the same time lead to smaller public revenue, and thus the decline of prices affects also the salaries of civil servants (State employees). Should *yields decline* first, this decline must sooner or later affect incomes, and thus indirectly also prices.

All this applies only to cases, where a change has occurred in the exchange value of the monetary unit, for only in such cases the change must be reflected in all the three systems of money mechanism (i. e. in incomes, prices and yields) .This is obvious, for they are all expressed in terms of money, and therefore a change in the value of money must affect all of them. It may not of course affect them all at once and simultaneously, for it may begin either in yields, or in incomes, or in prices, but after a time it must find expression in all the three systems. For this reason the adherents of the deflation theory want to accelerate this process of adjustment by applying the declining process, which they see in prices and yields, also to earnings (incomes). The unavoidable necessity of changing *the whole level of money mechanism* in all its three systems, is the main and fundamental sign of a change in the exchange value of the monetary unit, i. e. of inflation or deflation.

On the other hand a change in the exchange value of goods, even if it affects the value of all goods, does not require a change and numerical reconstruction of all the three systems of money mechanism. Thus for instance an increase of the whole production changes (reduces) the price level, but the level of yields and of incomes remains the same. For the undertakings are compensated for the decline of prices by a larger output and larger volume of sales, and if the yields remain the same, then obviously incomes remain the same too. The change was due to the changed value on the part of goods.

In a similar way the decline of the price level may be the consequence of a serious change in the distribution of income (through dynamic inequality), for instance if a large part of human society loses its income altogether. And it is this fact (referred to above on p. 6) which economists habitually omit. The decline in prices may occur in this case of faulty distribution of income even if the aggregate income (national income) remains unchanged. Because if in such a case the rest of society obtained larger incomes, it would not help, for the underconsumption of some cannot be compensated by the overconsumption of others through capitalization. The stagnation of sales of goods for ultimate consumption must follow, and every consumption for capitalization (investments in machinery) not only becomes superfluous, as it cannot be fructified (owing to that stagnation), but only aggravates the crisis further (through excessive capitalization and excessive investments).

b) Change in the price level and the changed value of money.

Let us now examine under what conditions we may assume that a change in the price level is due to a change on the part of money and not on the part of goods, for only in this way shall we be able to answer the question as to what deflation is, and what it is not.

If only the prices of *some* goods rise or fall, then we way assume as certain that this movement has been caused by special reasons on the part of goods, for example by cheaper and more plentiful raw materials, by improved methods of production etc., and we have no reason to believe that the value of the monetary unit has changed.

But if the prices of *all* commodities rise or fall simultaneously, we must distinguish between two alternatives: either the movement is *symmetrical* in all prices (prices of all commodities change in an equal proportion and in the same direction), in which case we may assume that the movement is due to the changed value of the monetary unit, since otherwise we would have to assume that special causes of equal intensity have affected all branches of production, which is most improbable; or the change (in the price level) is *general, but not symmetrical.* Such a change may, but need not necessarily be due to the changed value of the monetary unit. It may be due to such a change, because apart from the general symmetrical movement of prices, caused by the change in the value of the monetary unit, there may have been simultaneously some special changes of value on the part of certain goods, so that the movement of prices is general, but not symmetrical. But this general, not symmetrical movement is *not necessarily* due to the appreciation or depreciation of the monetary unit, even if the movement tends in one direction only.

Let us refer once more to the above mentioned example and let us for instance assume that production grew in consequence of reasonably applied rationalization, and that this led to a general, but not to a quite symmetrical decline of prices. The monetary unit would have a greater purchasing power and therefore, according to current public opinion, a clear case of appreciated money would be established. But as a matter of fact no change of value occurred in the monetary unit, because incomes and yields have remained unchanged; on the contrary it is the value of goods which declined in consequence of greater supply. The fundamental difference between the two changes, viz. the change originating on the part of goods, and that originating on the part of money, is in the circumstance that in the former case the movement of prices does not affect the other two systems of money mechanism (yields and incomes), whereas in the latter case it affects the whole money mechanism (yields and incomes, as well as prices).

Or, let us assume that the prices of all goods have fallen, because the structure of distribution has changed, for instance through some new invention, whereby one half of the manual labour was replaced by machinery. Only half the workmen could continue to consume, and as the output would remain the same, it would lead to the decline of prices. The number of consumers would diminish, and the remaining consumers could not extend their consumption capacity to any considerable extent. Again we could not see the cause of this decline of prices in the appreciation of the monetary unit, because only prices and yields declined, whereas incomes remained unchanged, and unless incomes were reduced as well, we could not conclude on any change in the value of the monetary unit. The capital importance of this distinction will appear later (see p. 81).

Both these examples prove that it is quite incorrect to conclude from a general rise or fall of the prices of commodities that a change in the value of the monetary unit has taken place. The only premises, justifying the conclusion that such a change occurred, are the following:

1) either all the prices of commodities have changed in an equal measure and in the same direction, i. e. *symmetrically* and *simultaneously;* or

2) the prices of commodities have moved in the same direction (i. e. up or down), but not symmetrically or simultaneously. In this case we can conclude on deflation or inflation, if the following three conditions are given:

α) if *all* the prices have changed, for otherwise we would have to reckon with special causes which led to the rise or fall of the prices of one kind or certain groups of commodities only (as for instance in the case of the fall in the prices of agricultural products which preceded the world crisis and precipitated it through the underconsumption of the rural population);

β) if *production remained unchanged,* for otherwise the general rise or fall in prices could be explained by the decline or growth of production; and

γ) if the *distribution* of products remained unchanged, for it is no proof of the changed value of money, if in consequence of better distribution consumption and prices increase, or if they decrease in consequence of disturbed distribution.

Only if these three conditions are fulfilled, can we conclude from a general, but not symmetrical change in prices that the appreciation or depreciation of the monetary unit has taken place. Provided production and distribution remain unchanged, we talk of *inflation*, if prices, yields and incomes swell, and of *deflation*, if prices, yields and incomes shrink. From this follows the important conclusion that in order to establish the existence of a deflation process, it is necessary to prove that either all the prices have fallen simultaneously and symmetrically, or that they have fallen generally, but not symmetrically, and that at the same time production and distribution of income have remained substantially unchanged. The latter condition is especially important, for dynamic inequality of distribution is equivalent to overproduction, the decline of prices being the same in the case of absolute and of relative overproduction.

Since the premises mentioned above have not been fulfilled, the case for deflation appears to us untenable.

c) The ways in which deflation is carried out.

Having thus cleared up the meaning of the changed value of the monetary unit and the conditions under which such a change is possible, let us now analyze the methods and ways in which deflation may be carried into effect.

In this respect I must once more refer to the organic conjunction of money mechanism, i. e. to the interdependence between yields, incomes and prices. If we want to alter the value of the monetary unit, and thus change the level of the whole complex of money mechanism, it is sufficient to change any of the three systems of which it consists, and the change will in time automatically affect the other two systems. To carry out deflation it is sufficient to reduce *incomes* (wages and salaries), or to reduce *prices* (for instance by raising the *rate of exchange* of the national monetary unit in the international money market), or to reduce *yields* (net products) by means of credit restriction, or by means of higher taxation, without placing this additional revenue at the disposal of production and cosumption through public expenditure. Any of these interventions would sooner or later affect the remaining two systems of money mechanism.

All this applies to *unstabilized currencies,* i. e. to currencies that have no gold standard or "gold exchange standard", i. e. no fixed relation to gold or to a monetary unit of another country with a gold standard. For the organic connection between incomes, yields and prices must apply even to other than gold standard currencies.

The second type of deflation, viz. *deflation of a gold standard currency,* cannot take the form of an altered relation between the value of gold and that of the monetary unit, for this relation is established by law (gold parity). As soon as gold standard currency, or a currency with a fixed parity, in effect equal to gold currency (gold exchange standard), is introduced, the connection between the three systems of money mechanism not only remains valid, but the whole economic organism in addition becomes firmly bound with the *price of gold* as a commodity. The situation may be compared to our planetary system, in which all the astral bodies are mutually connected by the force of gravitation, whereby at the same time our whole planetary system, including our sun, is again attached to some other unkown body or planetary system in the universe and participates in its course and laws. Gold then constitutes the fourth member in this organism, which up to now consisted of three complexes (yields, incomes and prices). This fourth member, however, has a different character from the other three, inasmuch as its exchange relation to other commodities determines the level of the whole money mechanism (i. e. of yields, incomes and prices), but vice-versa the level of this money mechanism cannot permanently determine the exchange relation of gold to other commodities (i. e. the exchange value of gold), except through a universal measure, implying the consent of the whole world. This firm, universal foundation is the very purpose of the gold standard, for its purpose is not to assure the conjunctive functioning of the three systems of money mechanism, assured in any case, but to fix the whole money mechanism on a firm basis, especially for purposes of international payments. Without this firm basis money mechanism is clearly exposed to the danger of various changes, for every change in the value of the monetary unit in one of its three systems tends to affect at once the other two systems. Each of these systems thus represents a vulnerable spot, and each of them again has a number of other vulnerable spots, which menace the stability of money mechanism. The greatest of these dangers for a country lies in the lack of equilibrium of its international *balance of payments,* for a deficiency in this balance means a menace to the international rate of exchange of its currency, which has a direct influence on the price level. On the other hand if a permanent equilibrium of the balance of payments is achieved, the gold standard becomes fairly dispensable, provided no radical and artificial interference is made with any of the three systems of money mechanism.

The conjunctive systems of incomes, yields and prices, without the gold basis, thus form an organism which is floating freely in the air. But as soon as the gold standard is introduced, this money mechanism becomes bound to gold just as our planetary system is bound to other unknown suns and planetary systems. If the *price of gold* as a commodity changes, then of course the whole money mechanism must change too. This change affects first the systems of yields and incomes, and *only in the end the system of prices,* for commodities are not as a rule exchanged directly for gold, so that the price of gold in relation to other commodities manifests itself only indirectly through reduced yields (restrictions of credit, high rates of discount etc.).

But it is even more important to examine the question whether the reverse process is possible, viz. whether a change in all the three systems of money mechanism can affect the value of gold. For the sake of simplification let us assume for instance that we are faced with only one of the possible changes (inflation, deflation), viz. with the appreciation of gold, i. e. with deflation. We see at once that it would be possible only *internationally,* not locally. For even if one nation reduced its internal level of yields and incomes, which eventually would lead to a lower price level, this lower price level would not pass outside its frontiers. If the world relation of the price of gold as a commodity to other world prices remained permanently unaltered, the effect of the said "deflationary" reduction of yields and incomes would presumably be the raising of the rate of exchange of the national currency in the world money market. The value of the national monetary unit (i. e. its purchasing value) would then rise and would become greater than the world value of the amount of gold which the monetary unit is supposed to represent according to law (gold parity). But since it is impossible for a nation with a gold standard currency to separate the value of the currency from the value of gold, except by law, the *rate of exchange of that gold currency could not rise* (for if it did, the legal gold parity would be broken, in the same way as the fall of the rate of exchange means virtually the abandonment of the gold standard). As the rate of exchange would have to remain the same, prices would begin to rise again, and a higher (i. e. the original) level of prices would lead again to higher yields and incomes.

From this theoretical argument it follows that the method of carrying deflation into effect in countries with an unstabilized (other than a gold) currency may consist in the change of the level of any of the three systems of money mechanism. *In countries with a gold standard currency deflation is possible only in consequence of the appreciated world value of gold,* for instance in consequence of changed conditions of its production. But an artificial raising of the value of gold, for instance through credit deflation, is impossible, since an isolated "deflationary" attempt of only one country could not be successful, and an attempt by the whole world, requiring the consensus of all nations, is hardly conceivable. *Deflation* *of gold* in consequence of its changed value (through underproduction of gold) would first of all manifest itself in yields and incomes, and only last of all in prices, as we have shown above; it could never appear first of all in prices (i. e. through their decline). But as the present crisis began with a decline of prices, it obviously could not have been caused by the deflation of gold.

d) Changed value of gold in consequence of changed conditions in the production and marketing of gold.

I will not examine in detail the question whether the conditions in the production of gold have changed to such an extent that a lack of gold resulted thereform, causing the rise of its exchange value throughout the world. Suffice it to say that no such change has occurred, and that even the greatest pessimists in the question of gold supply reckon with a certain lack of gold only in the distant future, anticipating a decline in the production of gold and hence a certain deficiency of gold in relation to the aggregate requirements of this commodity.*)

e) Casuistic examination of the problem of deflation:

Let us now determine, on the basis of precedents, the ways in which deflation was carried out in practice in the past, in order to see whether the symptoms of the present crisis justify the view that it is due to the deflation of gold.

Let us first of all take the case of an *unstabilized currency.* After the war several countries with unstabilized currencies carried out deflation (England, Italy, Czechoslovakia etc.). None of these countries had a gold currency, and they only tried through deflation to come back to the pre-war gold standard (England), or at least to raise the currency as near the pre-war parity as possible. From the preceding it is clear that in all these cases of deflation those methods of procedure have been used which we described above

*) See for instance Elemer Hantos: „Die Ko-operation der Notenbanken", J. C. B. Mohr, Tübingen 1931, p. 32 et seq.

(see p. 61). Deflation could begin either through the reduction of incomes, or of yields, or of prices. The most usual method of putting deflation into effect, however, has been the raising of the international rate of exchange of the currency, whereby a radical pressure was brought to bear upon the whole price level.

This method was in particular used in Czechoslovakia (1922/23). By raising the international rate of exchange, Czechoslovakia raised the value of its currency, so that imported goods became cheaper. Deflation thus promoted imports and hampered exports, and home prices had to adapt themselves to the lower prices of foreign goods. The decline of prices led to the depreciation of stocks of goods and of investments, whereas internal debts became more burdensome. Incomes remained at first unchanged, deflation therefore did not begin in the system of incomes, but in that of prices — not on account of inadequate home consumption, but on account of increased supplies of cheaper foreign goods. In course of time home incomes had to adapt themselves to decreased prices, for decreased prices meant lower yields of undertakings, necessitating a restriction of costs of production (wages and salaries) and resulting also in lower revenue from taxation. The menace of a deficit of the Budget forced the State to reduce expenditure, so that the raising of the international rate of exchange of the Czechoslovak crown started the movement of the whole apparatus of means which are used by the process of deflation.

It might have perhaps been possible to achieve deflation by a policy of restricting credits and earnings, i. e. by direct or indirect strangling of yields and incomes, but the process would have been far more complicated.

To apply the same methods which were used by Czechoslovakia in her policy of deflation, to a *gold currency* is simply impossible. What is true of a pure gold currency, is equally true of all currencies with a fixed parity, i. e. paper currencies, having an obligatory minimum gold cover and a stable relation (direct or indirect) to gold, fixed by law. The direct relation to gold is expressed by a definite weight in gold which the monetary unit represents, the indirect relation is expressed by a definite relation of the monetary unit to some stable foreign gold currency (for instance the American dollar or the French franc). The methods of deflation applied to such gold or stabilized currencies have been described above (see p. 62).

We have proved that the appreciation of gold in the case of a gold currency or of a legally stabilized currency (such as that of Czechoslovakia to-day), is equivalent to monetary deflation. In other words it is impossible to raise the value of gold without raising the value of money. But the value of the monetary unit cannot be raised above the gold parity. Deflation of gold could manifest itself only in relation to goods, i. e. in relation to the price of goods. In short a *separation of money from gold in these cases is impossible*. The monetary unit cannot achieve a higher rate of exchange than that which corresponds to its gold parity, and deflation therefore cannot be carried out by an artificial raising of the international rate of exchange.

But we have also shown that the deflation (of prices) in the case of a gold currency would have to start with the deflation of yields and incomes, i. e. indirectly with the deflation of the purchasing power of the population. The deflation of gold, i. e. its appreciation in relation to other commodities, is not feasible except through the *restriction of yields and incomes* with the same production as before. For otherwise how is the person, desirous of buying commodities, to know that an appreciation of gold is taking place and therefore that he is to pay lower prices for them?

The said indirect repression of the purchasing power of the population may be carried out especially by the bank of issue by means of an appropriate *credit and discount policy*. This restriction of yields and incomes is, however, tantamount to the creation of artificial underconsumption, i. e. to a reduction of consumption by indirect, forcible means. From this it follows that it is incorrect to distinguish between the symptoms of deflation and those of underconsumption. There is no distinction between them, inasmuch as underconsumption is also one of the symptoms of deflation. Underconsumption due to deflation would in fact hardly be distinguishable from underconsumption due to rationalization, psychic depression, and all the other causes of the present crisis, mentioned above. If we want to find out whether the crisis is due to deflation or underconsumption, we must not look for proofs only to the present symptoms, but to the origin and to the *primary causes of the crisis,* which led to the existence of its present symptoms (i. e. underconsumption). These causes are not difficult to find, and to see them does not require special perspicacity. Let me only ask the adherents of the theory of deflation: which were the deflation measures, with which the present crisis started? The crisis broke out notoriously in the United States: which were the deflation measures there, aiming at a restriction of yields and incomes? Where did we see any high rates of interest before the outbreak of the crisis, vhich could have pointed to deflation, when even in the United States the rate of discount before the crisis did not exceed 6,25%? On the contrary at the outbreak of the crisis rates of discount have been reduced almost everywhere to an unprecedented low level. What historical fact can the adherents of the deflation theory adduce in support of their contention? What motive would the United States have had to carry out deflation, since they had almost all the gold in the world?*) On the other hand we have adduced a number of positive facts in support of our theory.

*) B. Anderson proves in the Chase Ecconomic Bulletin (Vol. XI, 16th. March 1931) on the ground of indexes, that many more credits have been granted before the crisis than was compatible with economic expedience. If credit inflation existed in the USA, and this inflation had to be stopped and restricted, such restriction does not prove that deflation was introduced.

If deflation, due to the appreciation of gold, was the cause of the crisis, this appreciation would have to appear first in yields and incomes, whether it came in consequence of changed conditions in the *supply of gold,* or whether it came in consequence of *artificial interference.* In the former case appreciation would have appeared in those parts of the world where there was a *lack of gold* for currency purposes, for the peculiarity of the "commodity of gold" is the circumstance that its exchange value is determined far more by the demand for currency purposes than for purposes of trade and industry. This contingency is quite out of the question in the case of the United States, where most of the world reserves of gold are concentrated. In the second case there would have to be a *reason* for artificial interference in favour of deflation (unless appreciation was necessitated by conditions of production and marketing of gold), and then it would have to be carried out, not locally, but *throughout the world.* The usual explanation that an unequal distribution of gold was the reason for this deflation process, which led to the restriction of credit in countries where there was a lack of gold, cannot be proved by any restrictive measures in those countries, most of which are countries without a pure gold currency, but with a gold exchange standard (i. e. countries, where the gold cover includes also foreign bills and cheques for money based on the gold standard). An adequate reserve of gold in such countries is not indispensable, being in fact described often as conducive to inflation (for a large absolute gold reserve enables an increase of the notes in circulation, while the relative proportion of the "gold cover" remains the same). Thus in spite of a most careful search I cannot find a single fact in support of the deflation theory.

§ 4. **The justification of the theory of underconsumption.** Our inquiry into the probability of the deflation theory would be incomplete, if we proved its impossibility without refuting the objections and the doubts attaching to the opposite theory, viz. the theory of underconsumption. Our introductory remark that only two theories are possible, might seem incorrect, if we refuted the deflation theory, but left the objections to the other theory unanswered, for in that case it might be concluded that a third theory might exist, different in principle from both the theories described above.

Let us therefore examine the *objections to the theory of underconsumption.* My opponents argue as follows:

"The theory explaining the crisis by the effects of rationalization would have to explain how it is possible that the decline of prices was so sudden and general, for rationalization progresses only gradually and from one branch to another. A decline in prices, due to rationalization, would furthermore have to lead to an extension of production (for prices would have to rise again, if the output remained the same) and therefore, since incomes did not fall, to greater prosperity. In this case the decline of prices does not necessitate the reduction of wages, since the undertakings are compensated for lower prices by larger sales, and therefore the yields of undertakings do not decline and incomes remain the same as before. A part of the workmen may be discharged, but the loss of their consumption does not reduce aggregate consumption, for the decreased consumption of some would be compensated by the increased consumption of others. Rationalization therefore cannot cause underconsumption, nor a crisis of production and a stagnation of sales, it must on the contrary lead to greater prosperity. Increased unemployment may cause a social crisis (of one class only, i. e. of the working class, as far as it became affected by unemployment owing to rationalization). The theory of rationalization does not therefore explain the crisis, the only satisfactory answer being provided by the theory of deflation."

My answer to these objections is that they are based on entirely false assumptions. Thus for instance it is wrongly assumed that I see in rationalization the only cause of the crisis. I do not talk of a crisis of rationalization, but of a crisis of distribution and consumption, for I consider rationalization to be only one of the causes and only one component of the whole complex which led to underconsumption. There is no special "rationalization" theory. Quantitatively rationalization is not even the most important cause, other causes being equally important or even more important than rationalization (loss of markets in countries with a silver currency in consequence of the depreciation of silver and of its purchasing power, crashes on the American Exchange and then on the European Exchanges or Bourses, instalments business, and a general panic and depression). Rationalization is only *qualitatively* important, as its detrimental effects are inherent in the Capitalist system. Even if it were proved that rationalization is under all circumstances beneficial and never detrimental, it would not disprove my theory of underconsumption, for it would not disprove all the other causes mentioned above.

Secondly, it is wrongly assumed that prices during the world crisis have fallen in consequence of rationalization. Had prices fallen in consequence of lower cost of production due to rationalization, such a decline of prices would really have led to greater prosperity, for cheaper goods would have enabled the consumer, earning the same income as before, to buy more goods and therefore live better than before. But the theory of underconsumption denies that this is what has really happened. On the contrary it asserts that *rationalized undertakings did not reduce prices* of commodities as much as they could or should have done, and, secondly, that rationalization caused *unemployment* and thereby underconsumption. One of the chief causes of the crisis is, in our opinion, the fact that the saving achieved by rationalization has not been used at all, or at least not in full, for reducing prices, and that it was not ultimate consumption, but capitalization that profited from that saving. The fault of this does not lie in rationalization as such, but in the *too rapid progress* of rationalization, which was stimulated thereby. Our theory thus does not ascribe the decline of prices to the reduction of the cost of production in consequence of rationalization, but to underconsumption, caused by unemployment which in its turn has been caused, among other reasons, by rationalization. The ultimate consumer profited almost nothing from the saving achieved by rationalization. He could have profited from it in two ways, viz. directly, had the prices fallen in time, since with the same income he could have purchased more, or indirectly, had the savings been divided up between the agents of production, so as to serve ultimate consumption indirectly, for instance in the form of higher wages, higher dividends etc. Neither of these benefits has materialized, or at any rate not to any great extent. Prices have not fallen to any great extent, since the undertakings were anxious to make as much profit as possible, being actuated by an unsound, feverish desire to invest as much surplus as possible for the purpose of further rationalization, and to amortize (through high quotas of depreciation for wear and tear) past investments in a much shorter time than ever before. Where the regulations concerning balance sheets did not permit this, various reserves were created, but in any case it happened at the expense of a legitimate reduction of the prices of commodities. This hasty progress was undoubtedly detrimental to ultimate consumption, for the disproportionate depreciation for wear and tear formed part of the running expenses, whereby the prices of products were indirectly increased, or at any rate kept up at a higher level than necessary, for if this depreciation had proceeded by the same slow degrees as before the war, prices of products could have been much lower. The consumer thus indirectly paid for these constant renovations and improvements, but his sacrifice was in vain, for these new machines could not subsequently be used at the full capacity for which they were installed, since the very purpose of their introduction was to „save labour", i. e. to deprive him of his work and consumption power. And when the prices did fall at last, it was too late, for by then a great deal of consumption power had been lost.

The decline of prices during the period of feverish rationalization was also successfully hampered by numerous trusts and cartels, which kept up stable prices and strove for an accumulation of reserves for further investments. Only in exceptional cases did rationalization lead to considerable reductions of prices (Báťa, Ford), though even in these cases it developed with dangerous speed and into dangerous dimensions.

But consumption did not profit even indirectly from this hasty rationalization. Even when saving through rationalization on the cost of production, undertakings released but a small portion of these savings for ultimate consumption (for instance by dividing the profit among shareholders in the form of higher dividends), whereas the larger portion of their surplus was used for new investments, especially for equipment with new machinery and for improved methods of rationalization. The savings achieved by rationalization in all these cases were for the most part kept back by the producers for further investments before reaching the stage of ultimate consumption, or even the stage of distribution into incomes. The last link in the chain of consumption, viz. man as consumer, not excepting the employer (for instance the shareholder) himself, did not by far profit from rationalization as much as he could or should have done.

Who then reaped the benefit from rationalization? In my opinion it was the internal technical equipment of industries. Factories have been equipped with machinery to achieve an enormous productive capacity at as low a cost of production as possible, but this capacity could not subsequently be fully utilized, for on one hand the possibility of sales was limited by customs tariffs, on the other hand consumption declined in consequence of mechanization, i. e. through the growth of unemployment. This second phenomenon was thus due to *excessive capitalization,* in other words to a development which was manifestly unsound and uneconomical. It was surely wasteful to equip factories with machinery which could not subsequently be used, for, instead of that, it would have been wiser to produce goods which at that time were more needed. This loss was not, however, very important, as the crisis did not break out in consequence of a lack of commodities. Excessive capitalization in this connection means the shifting of the equilibrium between ultimate consumption and capitalization in favour of the latter and at the expense of the former. Regarded from the point of view of general economic welfare, not from the private-economic point of view of individual profit, such excessive capitalization obviously implies superfluous investments.

A very serious problem results, when we consider that these capitalized surpluses are turned into auxiliary capital (for instance into machines), the aim of which is to produce commodities for consumers, including those who had been excluded from the ranks of consumers owing just to this excessive accumulation of capital (i. e. the unemployed). What would we say to a man who had sold his horses and then built stables for them? Mankind has devoted all its energy to the preparation of possibilities of greater production (through equipment with new machinery), instead of concentrating on production itself. The result of human labour took the form of machines and appliances, instead of commodities for the satisfaction of human wants. We saw only great preparations for deeds, but no deeds themselves. Figuratively speaking, man restricted his consumption of food (forcible saving, failure to divide profits etc.) in order to provide the best possible outfit for his kitchen, and then, when at last he began to use this outfit, he could not eat all the food that he cooked, because in the meantime he had lost all his appetite (consumption power disappeared). The criticism of my theory is therefore based on the wrong assumption that the low price of food from that kitchen is due to the saving effected in the cost of production and to the economical outfit of that kitchen (decline of prices in consequence of rationalization), whereas as a matter of fact the low price is due only to a lack of demand (underconsumption), since some people cannot afford to buy those cheap dishes and others bide their time, saying that nobody knows what is coming and that it is therefore wise to restrict one's wants (consumption) and to save money (for purposes of capitalization).

This mistaken assumption that rationalization must automatically lead to the decline of prices and thus increase prosperity (whereas in reality it does not lead to lower prices, but to lower consumption owing to increased unemployment) is related to another wrong assumption, viz. that a crisis of public finance cannot be due to rationalization, because only the taxable money incomes of the unemployed are lost. Our theory does not see the cause of the crisis of public finance in the loss of the incomes of the unemployed, but in the general economic disturbance, caused by underconsumption. For this disturbance leads to lower yields of undertakings and therefore to lower incomes of households, detrimental to the national standard of life. This decline of incomes must soon show itself in the decline of revenue from direct and indirect taxation, and must, together with the additional burden of subsidies to the unemployed on the side of expenditure, lead to a financial crisis.

The third false assumption is the opinion that the lost purchasing power due to increased unemployment is made good by the increased purchasing power of other classes of the population. I think I have already proved conclusively that this is not true. My opponents argue as follows: "It may be that unemployment throttles ultimate consumption, but it promotes capitalization. Does not capitalization (i. e. the formation of auxiliary instead of consumption capital) imply consumption of another kind, i. e. of goods that aid labour in production? Do not the amounts thus saved pass (through the banks) into the hands of producers who use them for buying factories, machines etc.? It is not ultimate consumption, but it is consumption all the same."

The answer to this objection may be found in the first chapter. Consumption due to capitalization (i. e. the spending of auxiliary capital saved by capitalization) can never substitute ultimate consumption, for it stimulates quite a different kind of production, and herein lies the whole trouble. Consumption due to capitalization means the building of factories, the equipment of works with new machinery etc. Capitalization in itself may be, of course, useful, for the whole progress of mankind has been achieved through this concentration of capital. If people had not saved, i. e. had they not consumed less than they could have done, capital for modern industrial enterprise would have never been available. But if in former times there was a lack of this capital, now there is too much of it, i. e. too much relatively, not absolutely. Excessive capital as such could never be detrimental, for its possession would permit mankind to squander it with greater extravagance instead of saving it parsimoniously, and that would certainly be a very good thing ("Superflua non nocent"). But it is detrimental, because, owing to faulty distribution, we cannot consume it. The formation of capital has been carried out not only at the expense of ultimate consumption, but also against the interests of future ultimate consumption, for this consumption began to develop in a diametrically opposite direction. The increase of capital (mechanisation of labour) is achieved now only at the cost of the loss of a number of consumers, although this increased capital could supply not only the same, but even greater number of consumers than before. Increased consumption (in consequence of the growth of population and of their wants) could consume more capital, but the increase of capital (and of production) is achieved only at the expense of the loss of one of its chief pillars (part of ultimate consumption). In other words *capital rises on the ruins of the props which were to support it* and for which it has been created. Unlike the bird Phoenix, which was reborn from its own ashes, capital is sinking into its grave, choked by its own superfluous fat. The more capital is created in this way, the more nails are put into its coffin, for it is destroying in advance the food (the ultimate consumers) that could have kept it alive.

This incongruity is manifestly unsound. Only if or when it becomes possible to preserve all the consumers, can capitalization and rationalization proceed at will. The process may be described in the following way: A technical invention is made, rationalization and mechanization follow. The place of the ultimate consumer (who loses his job, and hence his income and consumption power) is taken by a kind of a Robot (mechanical man), whose cheap labour represents a saving for the producer. That saving is capitalized (i. e. changed into auxiliary capital, such as machinery), not consumed (in the form of food or other necessaries). A further Robot is bought for this saving, which means excessive capitalization. Again an ultimate consumer is deprived of his job and income, and again a saving is effected, which goes towards further capitalization. And now comes that obvious contradiction which is the salient point of the whole argument: These Robots are working and turning out goods for human consumption (ultimate consumption). They turn them out faster and better than men can do. The saving which they are helping to effect, is used for the acquisition of new Robots (capitalization takes place). The more progress is made by technical science, the greater becomes the number of Robots, and the smaller grows the number of people with an income enabling them to consume. Robots expel people from production, and deprive them of incomes and thereby of their power of ultimate consumption. The Robots themselves do not consume, but they turn out an ever growing quantity of commodities for those people who possess incomes and are able to consume. It matters little whether the Robots produce for ultimate or for other consumption. All production in the end depends on ultimate consumption, since if this consumption stops, then all the intermediate consumption must stop too.

Where shall we find an adequate number of people with an unimpaired purchasing power to consume all that has been produced by these Robots? Where shall the people, expelled by the Robots from production and deprived of their incomes, find an opportunity of obtaining the commodities produced by the Robots in plenty, considering that these people are allowed, under the Capitalist system, to obtain them only through the medium of incomes, of which the Robots had deprived them?

I am told that the loss caused to consumption by unemployment is made good by the benefit gained on the other hand by the rest of consumers. That would be true, if capitalization did not take place. This capitalization of the producer's surplus is not even carried out by the last consumer, but by the undertaking itself, which withholds a part of this surplus for further investments, instead of allowing it to flow into households. This saved consumption power, from which capitalization profits, is used for the acquisition of new Robots. I therefore assert that it is not immaterial to economic development, whether the consumption power is left to people who can actually consume, i. e. buy products turned out by Robots, or whether it is used to provide new Robots who multiply production destined for human consumption, but at the same time deprive human beings of the opportunity of consuming.

You may say that even those who produce machines are ultimate consumers, and that therefore production which works for intermediate (capitalizing) consumption, does not deprive the ultimate consumer of his income. *It does not matter who produces, but what he produces.* If for instance cloth is produced, then this production does not restrict the number of consumers, but if too many labour-saving machines are produced, ultimate consumers are excluded from production, and these consumers cannot be restored to the processes of production (unless the working hours are reduced) and of consumption, except through differentiation.

But in respect of *differentiation* we must remember that if prices do not fall in consequence of rationalization as they could or should fall, then the process of differentiation slows down, because consumers have no adequate purchasing power to stimulate new production, and because sufficient capital is not available for investments in new branches of production, for all the capital available has been absorbed by the old branches of production, desirous of renovating their equipment of machinery and other investments. Differentiation requires: a) *Investment capital* for new branches of industry. This capital is absorbed by the old industries, if excessive rationalization takes place, i. e. if the larger part of the producer's surplus remains in the undertaking and is not divided in the form of dividends, which may be deposited in banks and serve as credits to new industries; b) *a certain time* is required to enable new branches of industry to get a start and gradually to absorb superfluous labour; c) *new consumers* are required, i. e. fresh purchasing power. This fresh purchasing power can be created only if the level of earnings rises and prices remain the same (even at the expense of some classes). In this way incomes may become more evenly distributed and the purchasing power of ultimate consumers strengthened. If however this rise of incomes occurs at the cost of the *number* of the employed wage-earners, then the purchasing power does not increase, but declines. Or, vice-versa, the purchasing power can increase, if wages and salaries remain the same, but prices decline. But to both cases applies the assumption that the number of consumers must not decrease: hence the detrimental effect of unemployment.

Differentiation therefore requires from society, if the employment of labour in new industries is to take place, means for providing them with sufficient investment capital and readiness for purchasing their wares. If the number of excluded unemployed workmen grows faster than the new consumption power, required for new investments (auxiliary capital provided by intermediate, capitalizing consumption) and for new running expenses, differentiation cannot take place.

What has really happened is this: Capital, which could have been used for investments in new branches of production, has been withheld by the old industries for the purpose of providing fresh equipment of machinery, whereby the number of consumers was reduced. New purchasing power, required for the existence of new industries (for purchasing commodities of the new differentiated production), could be supplied only by the wide masses of consumers. There was not enough of this fresh purchasing power, since prices did not decline fast enough, nor did wages rise adequately. Wages have been raised only exceptionally, and again only at the expense of the aggregate number of consummers, according to the Capitalist maxim of „well paid labour, but as little of it as possible". So far as purchasing power was created by accumulation and concentration, it was used only for the benefit of investments, mostly in old industries and no profit could therefore accrue therefrom to differentiated industries, for it contributed only towards capitalization and not towards an extension of ultimate consumption required by the new differentiated industries. The purpose of the tax on rationalization, proposed in the second Section of this work, is to facilitate differentiation in production with the aid of public authorities.

Thus we have proved conclusively that all the three assumptions, on which were based the objections to the theory of underconsumption, are incorrect. If we leave apart these assumptions, on the ground of which alone it was possible to see in rationalization an instrument, leading automatically to a decline of prices and leaving incomes intact, and thereby contributing to greater prosperity, we find that on the contrary rationalization is one of the important causes of underconsumption and of relative overproduction, i. e. of those phenomena which are so typical of the present world crisis. Nevertheless rationalization is only one of the causes of this crisis of underconsumption, and our criticism of rationalization forms only one branch of our theory of underconsumption.

We shall also now be able to understand better, why the decline of prices during the crisis was general. The cause of this general decline was not lower cost of production due to rationalization, but general underconsumption, which, besides other factors, was indirectly caused also by rationalization. Underconsumption was the cause, and not the effect, of the decline of prices.

§ 5. **Practical conclusions from this inquiry.** We have so far examined the theoretical plausibility of the deflation theory and the correctness of the underconsumption theory. This inquiry was all the more important in our case, since a theoretical mistake in the diagnosis could lead to disastrous results in practice.

We saw that the chief criterion of a change in the value of a monetary unit (inflation or deflation) is the unavoidable change of the (numerical) level of all the three systems of money mechanism, i. e. of yields, prices and incomes; and that a change in the value of commodities alone does not entail these consequences, for it affects only one of the systems of money mechanism. If for instance the methods of the whole of production changed, only the system of prices would change. If distribution of income changed and a large part of consumption disappeared, the effect would be the same as if the whole of production increased to an extent exceeding the capacity of consumption. In that case not only prices, but yields as well would decline. And yet it would not be deflation, but only a change of value on the part of goods.

Now, of course, someone will come and say: let us *reduce earnings* (incomes) as well, and then the monetary unit will become appreciated and deflation will be accomplished, since in that case a symetrical change will have been carried out in all the three systems of money mechanism. But this is just what we must not do, since in this way we would appreciate also all liabilities and therefore jeopardize the situation of the debtors (industrial undertakings and the Exchequer). On the contrary we must strive to improve and increase consumption, so that prices, and thus also yields, may become more normal again. The decline of prices was due to the changed value of goods in the same way as in the case of absolute overproduction, and there is therefore no reason why incomes should be adapted to the lower prices level. Had the exchange value of gold risen, the situation would be different, and we could not prevent a decline of incomes, corresponding to the decline of prices and yields. This thesis of the appreciation of gold is propounded by the "deflationists", but it is entirely unfounded.

If for no other reason, this thesis is unfounded, because in practice the appreciation of gold would first of all affect yields, then incomes, and only last of all prices. Whereas in the case of underconsumption the decline shows itself at first in prices, and then in yields, and this is what has actually happened during the present crisis. To introduce this decline wilfully also into the structure of incomes, is superfluous and unsound, for that would imply an actual appreciation of the monetary unit. To carry out deflation in this way is totally unnecessary and implies an unsound appreciation of debts.

If it is asserted that deflation was carried out only in wholesale prices, but not in retail prices and in earnings, how can this discrepancy be explained, and how can it be in particular explained that deflation did not affect incomes simultaneously? On the other hand if it is asserted that incomes did decline, why demand a reduction of incomes for the second time? And finally: where can we find a criterion of the quantitative extent of deflation? To what extent have incomes and prices to be reduced? What shall happen to public debts? Are they to be converted? Forcible conversion is an open admission of weakness and bankruptcy, and would lead to a decline of the prices of State bonds, to difficulties in the compilation of balance sheets, and to many other complications.

The progress of underconsumption has only one thing in common with the progress of spontaneous and intentional deflation, feasible only in the case of an unstabilized currency (such as that carried out in Czechoslovakia in 1922/23), viz. the fact that in both cases it is possible at the last moment to arrest the process and its effects in all consequences, and to avoid the last step which would complete the appreciation of the monetary unit and of all debts. In the case of an involuntary, undesigned and unavoidable deflation (which would occur if gold became generally appreciated in value, for instance in consequence of a lack of adequate supplies of gold due to conditions of production), it would not be possible and the decline would inevitably manifest itself in all the three systems of money mechanism, despite all the efforts to the contrary.

Thus we have an explanation for the fact that, despite the identity of certain symptoms, various countries try to solve the crisis in various ways. Some countries, for instance Germany, carry out deflation by a forcible reduction of earnings, others, such as the United States, carry out inflation of credit in order to raise the price level. We are at present at that psychologically critical stage, when prices and yields (proceeds) have declined, and when it is thus possible to accomplish deflation by a reduction of earnings (incomes), or to prevent it by raising the price level. I do not see in the raising of prices a definite remedy, unless we cure underconsumption as well by suppressing unemployment, but if I had to choose between the American and the German method, I would not hesitate to choose the former. I consider that Brüning's measures are very difficult to put into effect, that they are impracticable, as well as dangerous. Their aim was to counteract the effects of the depreciation of the English currency.

But economic development is now altogether moving in a vicious circle: Prices decline owing to growing underconsumption, and underconsumption grows owing to declining prices and yields, implying growing unemployment. The American initiative in the question of credit may supply that first shock which may lead us out of this vicious circle. But credit inflation cannot replace lost consumption (due to unemployment); it can only clear the way towards the recovery of consumption, without any danger to the stability of the American currency. Needless to say, other countries, especially smaller countries, could hardly follow with impunity the example of the United States.

All the solutions of the crisis, attempted by various countries, have one thing in common, viz. they are all *local,* isolated and confined to the limits set by national frontiers. Nevertheless an effective solution can be found only on an *international,* not on a national basis, inasmuch as the problem of unemployment is evidently international. That does not only mean that the crisis broke out everywhere, but it means also that as long as it is not suppressed everywhere, it will always cast a reflection even upon those countries, where it is supposed to have been cured locally. For this reason a purely national solution is of no avail.

The key to the problem of the crisis in my opinion lies in the *general anxiety and lack of confidence,* and, secondly, in *unemployment.* Unfortunately the majority of world public opinion inclines to the view that unemployment is a mere symptom of the crisis, and that it will disappear as soon as the crisis is over. I do not subscribe to this view, for I think that unemployment (though it has never been as extensive as to-day) is one of the causes of the crisis. I am convinced that if we do not try to cure unemployment, we shall wait for ever for the end of the crisis. A definite cure for unemployment can be found only through international co-operation. If we try to cure it locally, by means of taxation, shorter working hours or other measures, we shall always increase the burden borne by industrial enterprise. If industrial enterprise is not burdened to the same extent and proportion throughout the world, the competitive capacity of those industries, burdened more than the industries of other countries, will be handicapped and will diminish, and therefore no good will result therefrom.

If we recognise the principe of *international co-operation* in the matter of disarmament, why not in the question of unemployment? Although the whole world is moving towards more intense internationalism, although no "distant" countries exist any more, all countries being within easy reach of one another and thus so to speak neighbours, and although the interdependence of all nations is self-evident, yet in economic matters we still prefer to apply "local", not world, solutions to our problems, each nation being as fond of its isolation as a snail of its shell. Each nation speaks of the advantages of co-operation, but each acts in quite a contrary fashion to this profession. Each nation tries to cure unemployment, but only at the expense of the others, viz. by promoting its own exports and by hampering the imports from other countries. The Mercantilist regulation of trade and industry is almost as rampant as in the days of Louis XIV. The United States started this era of *protectionism* by raising a prohibitive tariff, and other countries followed suit, not excepting England, the country of traditional liberalism. England tries to improve her balance of trade by abandoning her traditional free trade policy and by facilitating dumping by means of a depreciated currency, Germany has reduced her level of wages and is also raising its tariff, Holland and other countries restrict imports by means of an autonomous quota system etc. All this is what I call "fishing for the last consumer" according to the proverb: "Better the last plum on my neighbour's tree than a proper care of my own tree, which might bring me a basket-full of plums". What result can such fruitless endeavour yield from the world point of view? It is a wild-goose chase, and no good can result from it for the world. What signifies a gain for one nation, means a loss to another. Unemployment may temporarily improve in one country, but at the same time it grows worse in another. *What is needed is a world solution.* The methods employed at present represent no solution, it is mere patch-up work. Each country is trying to find relief by hurting others, and the result is that all the nations are thus only brought nearer to the abyss. This mutual competition was even before the crisis the mainspring of excessive rationalization, and now it only leads to the aggravation of unemployment.

It used to be the custom among competitive industries that, when they could not prevail one over another, they came to an understanding and formed a trust. But sovereign nations seem unable to do so, preferring, in their Mercantilist blindness, to practise methods of *dumping*. Dumping is another problem which needs international regulation. Dumping arises from a deliberate policy of offering exported goods for sale at wholesale prices lower than those at which similar goods are offered for sale at home, but in its wider sense the term is applied to any methods of alleged unfair competition of foreign goods in the home market. Under dumping were thus understood all exports from countries with a depreciated (inflated) currency, later also exports from countries with a lower level of wages and a lower standard of life (inferior conditions of labour), or exports of goods made by sweated or convict labour etc. But the same objection as to these differential advantages, supposed to be conducive to dumping, may be raised against subsidies to industries, export bounties, and any modern labour-saving appliances (methods of rationalization), depending only on an adequate reserve of capital, which may also facilitate dumping methods. And thus we see that the question of international methods of unfair competition is another problem which will have to be examined on an international platform, for it is closely connected with the problem of unemployment.

The nations of the world have, however, so far followed a different path. Instead of international solidarity, they chose international congestion, preventing both the free influx and the free outflow of goods. Import prohibitions, import quotas, exchange regulations, compensation treaties, in short State regulation of trade and industry in its acutest form mitigates the danger of dumping, but at the same time prevents a sound international division of labour. It renders more or less useless all the efforts and sacrifices of England and Germany, so far as they were directed at a strengthening of their balance of payment and balance of trade, and at an alleviation of unemployment. At the same time it casts us back into the dark ages, when every household made itself all that it needed, consuming only that which it produced, and when no exchange of commodities and no trade existed. This state of things cannot, of course, become permanent, for otherwise every exporting country would have to change its whole economic structure entirely and become purely self-supporting and self-sufficient, which would be an obvious step-back.

For the time being the treatment of the crisis is only rendered more difficult by the fact that every class and every nation has its own conception of the crisis and sees its origin in those quarters, in which it wants to see them, in order to achieve an improvement of its own particular interests. Thus the agrarian circles (farmers) see the cause of all the trouble in the crisis of agriculture, Germany in reparations, England in the unequal distribution of gold, the Churches in the prevailing moral and religious laxity, manufacturers and businessmen in the high tariff walls of other countries etc. Personally I am of the opinion that we shall never be able to overcome the crisis definitely, until we achieve an international *abolition of mutual distrust* and an *international solution of the unemployment problem*, and thereby an improvement of consumption. A certain turn for the better, through chiefly of a psychological and not of a definite value, might be sought in a more liberal credit policy. The deflation measures adopted by many countries last year and this year, coupled with a shortsighted credit policy and protectionism, only aggravated and prolonged the world crisis.