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STABILIZATION OF THE GENERAL PRICE-LEVEL BY INTERNATIONAL VALORIZATION OF WHEAT, SUGAR, COTTON, COFFEE, AND RUBBER

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Eierland, Texel, Holland

THE present crisis, which began in 1929 and continually increased in violence until 1933, and which has led to an unprecedented trade-political and monetary chaos, is an international crisis. It is, therefore, clear that the purely national measures undertaken to meet it cannot hope to be effective. The various measures undertaken by the various governments have incidentally proved that an orderly business cycle policy cannot be achieved exclusively through national efforts.

When we say that the crisis is an international one, we must keep in mind that this economic phenomenon cannot be called universal. From the course of prices and of employment it is clear that it is the Western states which have been hit in the same way and at the same time by the phenomenon of the trade cycle.

Everywhere where Western civilization prevails, in other words everywhere where the Christian religion has more or less influenced the development of the civilization of nations, everywhere where the white race has the upper hand, there is a crisis, over-production, under-consumption, unemployment. The problems of Russia are not identical with those of the West, nor are those of Japan and China, although both the Russian group and the Chinese-Japanese group meet in certain domains with difficulties similar to the West by having adopted some of the economic institutions of the Western world. In addition, the problems of Western civilization are, to a certain extent, influenced by variations in the Russian and Japanese economic structures. On the one hand, Russia possesses the power, by reason of the monopoly of its foreign trade, of dislocating now and then the markets of the West; on the other hand, Japan, by reason of the low standard of living of its workers, can at times offer its products at dumping prices and disregard competition from Western industries. During the depression in the West this has had extraordinarily undesirable results.

On the whole, those regions have been most seriously hit which

have a specialized and differentiated production, that is, the so-called highly capitalist and new capitalist areas.¹

The question is often put: Is the crisis a result of over-production or of deflation? By over-production is understood a state of affairs under which a large part of the productive apparatus produces more than can be consumed, whereas by deflation is understood the reduction in the price of goods as a consequence of an increase in the value of money, or of an increase in the value of gold.

My answer to the question whether we have to deal with over-production or deflation is as follows: We have to do with both, for over-production results in deflation and deflation in over-production. The remedy which I would advocate against over-production or deflation is not limitation of production by restriction or destruction, nor inflation by reduction of the value of gold or of the money unit, but an extension of over-production, whereby the agrarian staple products, such as wheat, sugar, cotton, coffee, and rubber, produced in excess from time to time would be used to increase the money circulation, in much the same way as the enormous gold 'over-production' is used to-day for increasing the money in circulation. With this method of dealing with the crisis both over-production and deflation would be simultaneously met by the fact that a slight inflation had been caused by over-production.

At this point I wish expressly to state that the prevention of deflation by increased supply of money can have only very little effect. History has shown us a connexion between the cost-of-living index and the monetary stock of gold. Too large or too small a stock of money metal, however, affects the price-level very slowly, and a too small stock of money metal can never instigate by itself a catastrophic fall in prices, as in 1929. The rapid appreciation of money in relation to goods, especially after 1929, can be attributed only to a small extent to the lack of gold or of money.

When we say that gold becomes dearer and consequently all goods cheaper, we must, at the same time, keep in mind that gold has a special importance through the combination of the value of money with gold and through the connexions of debts and bank deposits with money, and thus with gold in our credit system. We must pay special attention in this respect to the factors which determine the value of money.

As Greidanus² maintains, the value of money rests to a large extent on the *yield* which money brings to the person who uses it. Just as

¹ Ernst Wagemann, Konjunkturlehre, p. 224 et seq.

² Greidanus, The Value of Money, P. S. King & Son, London, 1932.

the business man and the customer must have at their disposal certain stocks of commodities, so there is a continuous need of a stock of money. The value of the yield of this money corresponds more or less to the yield of bonds. Lack of time prevents my treating this matter in detail, but with the help of a few graphs of credit and property conditions in western countries (Europe—excluding Russia—but with Colonies, the British Commonwealth, and the North and South American States) I wish to bring this theory of Greidanus into harmony with the changes in the value of money in the last few years. (See Fig. 1.) The data used are based on estimates which may be somewhat inaccurate, and yet give a fairly clear picture of the position.

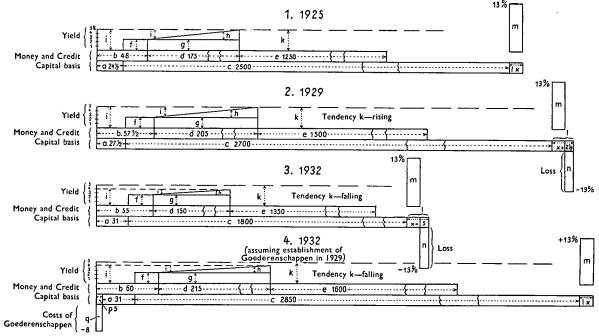
The first part of the diagram represents conditions in 1925. Starting from the bottom, there is shown first capital consisting of monetary gold and other objects, of which a certain number consists of stocks of agrarian staple products. The amounts are estimated at:

- (a) 24½ milliard Dutch guilders for the monetary stocks of gold.
- (c) 2,500 milliard Dutch guilders for the remaining capital (about three times the amount mentioned by Warren and Pearson as the capital of U.S.A.); x milliard Dutch guilders for stocks of agrarian staple products.

On this capital basis there rested the money and credit system with

- (b) A circulation of notes and gold, increased by the amount of credit balances of the banks of issue, of about 50 milliard guilders,
- (d) the deposits of the trade banks amounting to about 175 milliard guilders, and
- (e) long-term loans in the form of mortgages, bonds, &c., amounting to 1,250 milliard guilders. (This last figure is again about three times that mentioned by Warren and Pearson as the internal debts of the United States of America.)

Above this is a representation of the yield of these money, credit, and capital items. The assumption has been made of an interest of 5 per cent. on bonds, an income value of 5 per cent. on property, and an approximate 'consumption-value' of 5 per cent. on money. Of this yield of the money a part falls to the share of the note banks, whereas of the deposits of the trade banks a part falls to the share of such banks. A part is paid as deposit interest (less for short-term, more for long-term deposits), whereas the remaining part constitutes the yield of the deposits as money. The yield of the stocks of staple goods must naturally be much larger than the yield of money stocks, because the storage for these commodities amounts to about 8 per cent. for storage expenses and shrinkage (with wheat, for example),



- a. Monetary Gold Stocks (in milliard guilders).
- b. Gold and Notes in circulation plus deposits of note banks (in milliard guilders).
- c. Total remaining capital (in milliard guilders).
- d. Deposits of commercial banks (in milliard guilders).

- Figure 1
- e. Total of long-term credits (mortgages, bonds, &c.) (in milliard guilders).
- f. Profit of note banks.
- g. Profit of commercial banks.
- b. Interest on deposits.
- i. Money yield.
- k. Interest on long-term credits.

- 1. Stocks of agrarian staple commodities (in milliard guilders).
- m. Yield of stocks.
- Losses through surplus.
 - Monetary stocks of commodities in Goederenschappen (in milliard guilders).
- q. Costs of Goederenschappen.

irrespective of the interest which would be obtained for the same amount from bonds. In 1929 conditions were as shown in the second part of Fig. 1.

The capital base is as follows:

- (a) $27\frac{1}{2}$ milliard guilders monetary gold stocks increased by the gold in circulation;
- (c) 2,700 milliard guilders for the remaining capital; $x+2\frac{1}{2}$ milliard guilders representing agrarian staple products.

The money and credit system dependent on this amounted to:

- (b) $57\frac{1}{2}$ milliard guilders gold and note circulation, increased by the credit balance of the banks of issue;
- (d) 205 milliard guilders deposits in trade banks, and
- (e) about 1,500 milliard guilders mortgages and bonds.3

The stocks of agrarian staple products were in excess of the requirements of trade, the normal stocks being taken at x milliard guilders. The fall in prices of agrarian raw-product stocks had caused a surplus in stock of about $2\frac{1}{2}$ milliard guilders value, whereby the yield of capital invested in agriculture and for this reason the yield of many other undertakings was reduced. The income value of the unencumbered enterprises also fell; the destruction of the economic balance limited the amount of business done. There took place a flight from commodities to money. The volume of credit contracted. While the agrarian production and especially short-term production could be cut down only with very great difficulties, and trade fell off as a result of the crisis, stocks in agrarian staple products increased, so that the conditions in 1932 were approximately as follows (see part 3 of Fig. 1):

Capital basis:

- (a) 31 milliard guilders monetary gold stock increased by the amount of gold in circulation;
- (c) 1,800 milliard guilders for the remaining capital; x+5 milliard guilders representing agrarian staple products (calculated according to the prices of the year 1929).

The money and credit resting on this:

- (b) Gold and note circulation, plus credit balances of the note banks, about 55 milliard guilders;
- (d) deposits of the trade banks, about 150 milliard guilders;
- (e) bonds and mortgages about 1,350 milliard guilders.

We can put the yield of the money after the outbreak of the crisis in

³ On account of insufficient data, I have taken here an amount three times as large as the national assets of the United States of America (see Warren and Pearson, *Prices* 1933, p. 237, 5th printing).

1929 at a lower figure than that of bonds. A part of the money from circulation and a great part of deposits out of the credit system disappeared. Amongst other things there are two principal causes why money (or gold) increased in value so quickly and to such a marked degree in relation to goods:

- 1. Bonds retain their income yield, whereas shares and landed property barely continue to produce profits. Comparatively speaking bonds thus become more attractive than goods, and consequently dearer. Because the value of money is closely associated with the value of bonds (and vice versa) the value of both money and bonds rose quickly in comparison with goods.
- 2. In slack business periods the storage of gold is cheaper than that of goods. There is always interest on goods, cost of storage (including both expenses and shrinkage), which are not connected with the storage of gold. During a depression the demand for gold is greater than that for goods, and consequently gold must rise in value more quickly than goods.

From these considerations it will be seen that the putting in circulation of money by a so-called 'open market' policy on the part of the banks of issue during a depression such as that of to-day can have no influence on economic conditions. With bonds (e.g. State bonds) bringing in about 5 per cent. and with no market demand for money (the surplus money does not have a yield value of 5 per cent.) the money thus brought into use directly or indirectly had to disappear from circulation again. This method of increasing the quantity of money was therefore ineffective.

It follows from this and also from the yield theory of money that a devaluation of the currency in itself can have no decisive effect. Let us assume that all Western countries in 1932 had reduced the gold value of their currency up to 40 per cent., then only a somewhat more bearable debt burden would have been achieved. 'Superfluous' agrarian staple products would, however, not thereby disappear from the market, and the purchasing power of the farmers would not rise sufficiently. A simultaneous devaluation of all values of the Western countries would, in such cases, in my opinion, inevitably lead to a further reduction of prices (calculated in gold) for agrarian products (staple products).

If we wish to realize a more stable money value or to obtain a permanent stabilization of the prices of raw materials, we must ask ourselves the question why the price formation of these goods is so unstable. It is also necessary to get an idea of the influence which the price of each separate product has on the general business position.

The economic centre of gravity of the present crisis lies in the very difficult adaptation of production and consumption of the economically inelastic agrarian products in the Western countries to the low prices. Among other things, this is a consequence of the standard of living which was achieved through the development of the economic organization in the countries of the West. Whereas, for example, in Japan a rich rice harvest brings about a greater consumption of rice and vice versa, a larger wheat harvest does not as a result lead to any greater consumption in the West worth mentioning. A reduction in the bread price has practically no influence on the consumption of wheat. The demand for wheat is very inelastic and that for other agrarian products has the tendency to become more and more inelastic with a further increase of the general standard of living. This is a very important fact whose consequences we must take into account. The time when low prices of wheat still induced a considerably higher consumption and a better nourishment of the nation is already about seventy-five years behind us in the West, a time when wages expressed in wheat were less than half of those obtaining to-day.4 From this it is clear that in the Western countries, without economic reorganization, all subsequent over-production of agrarian raw materials (assuming that we are successful in our efforts to go on increasing prosperity in the future) will meet with greater and greater difficulty if it is to be overcome by increased consumption. A trade cycle policy which disregards this can never be practicable. It has always been hard for production in agriculture to adapt itself to lower prices. The apparatus for agrarian production can, to all intents and purposes, not be cut-not even to a small extent. The more complicated the credit structure is in agriculture, the more difficult such a limitation becomes. Attempts have been made in nearly all Western countries to restrict and to destroy production, but both from an economic and ethical point of view these remedies deserve the severest censure. The various harvest failures in 1934 have proved more than anything else how dangerous is a restriction policy for the proper securing of the food of the nations. The more production becomes specialized in Western countries the more also will the credit system extend in agriculture, and the more difficult it will be in future to limit agrarian production to deal with a possible over-production.

During the last serious agricultural crisis, agricultural production did not shrink, but extended still farther, even if the extension in 1891–1902 was somewhat smaller than that from 1903 to 1914.

⁴ Warren and Pearson, Prices, p. 202.

During the last agricultural crisis, however, the industry was able to recuperate much more quickly from the consequences of the destruction of purchasing power of the farmer than in the presentday depression. This can be accounted for by the more complicated economic structure, that is to say, the credit structure. The overproduction of agrarian staple products, which became acute in 1929, destroyed the purchasing power of the farmers, the result being an under-consumption of industrial products, which among other things was the cause of over-production in industry, this in its turn resulting in low prices and unemployment, whose reaction again was felt by agriculture, &c. To this was added the fact that industry and the credit system in 1929 were in a state of tension and unstable equilibrium and inevitably collapsed through the setback in agricultural prices. You know the details of this matter sufficiently well and they, among other things, were treated in great detail at the Conference at Ithaca in 1930. I wish to draw attention specially to Professor Sering's 'Causes of the International Depression of Agriculture' in the proceedings.

It is well known that the raw material producers are the chief sufferers in every crisis, and the greatest difficulties during a depression are experienced in the sphere of the staple products. In order to find out which staple products have most influence on the trade cycle, we must have an idea of the importance of each separate product. Table I gives a survey of the importance of each commodity in world production and world consumption, the average yearly production between 1920 and 1930 being shown in milliard guilders.

Of the raw materials mentioned in this table, gold is the standard of value whose production is stimulated by a low general price-level and retarded by a high one. Gold production thus has a contrary tendency compared with the other raw materials.

Coal, petroleum, iron, copper, and tin are industrial raw materials, which are partly controlled by trusts and cartels, and whose production reacts to moderate reductions in price. The greatest difficulties are met with in the adaptation of agrarian raw material production to lower prices.

Rice, although it is a very important food, has, during the present depression, caused comparatively few difficulties, because it is mainly produced and consumed in semi-capitalist regions and in districts in which men are well armed against over-production.

Wheat is the most important cereal product. The world trade in this product is more important than that in other kinds of grain, and world wheat stocks exceed those of all other kinds. The wheat price dominates cereal prices in general, and thereby the prices of other agricultural products, so that the price of wheat directly controls the price of half of all other important raw materials. The consumption of wheat, as has been said, is in great measure inelastic.

Table I. Average Annual Value of World Production of Staple Commodities, 1920–30

No.	Commodity	Average value in Dutch guilders		
		milliards		
I	Coal	15.5		
2	Rice	13.0		
3	Wheat	13.0		
4	Maize	9.0		
5	Petroleum	8.0		
6	Sugar	6.0		
7 8	Oats	5.4		
8	Cotton	5.3		
9	Wool	3.9		
10	Rye	3.8		
11	Iron	3.7		
12	Barley	2.8		
13	Coffee	1.2		
14	Copper	1.0		
15	Rubber	1.0		
16	Gold	1.0		
17	Tea	0.5		
18	Tin	0.4		

Sugar is a product with a unique market. The consumption could be considerably increased if the taxes on it were reduced in various countries, and if the price to the consumer were brought more into harmony with that received by the producers.

Cotton is a basic material for the textile industry, with an inelastic demand to the extent that although temporarily low prices may encourage consumption on the part of cotton manufacturers, this does not last very long.⁵ Cotton, to some extent, dominates the market for wool, flax, &c.

Coffee is a product with a very difficult business cycle in consequence of the nature of its growth. When demand exceeds supply, prices go up and new plants are put into the ground; but it takes about six years before their fruit comes on to the market. Hence there arises over-production with low prices, and reduction of new coffee plantings. Ultimately a new balance is obtained, the market cycle of

⁵ L. H. Bean, 'Post-War Agriculture and Business', Proc. of the Intern. Conference of Agricultural Economists, 1930.

coffee covering about sixteen years. In the course of time the demand for coffee becomes more and more inelastic and the supplying countries consequently seek other methods of adjustment, e.g. coffee destruction by the Brazilian Institute for the Defence of Coffee.

Rubber, like coffee, is a product with a very difficult cycle. In this case it also takes about six years before newly planted trees yield rubber. In times of higher prices (1925) plantings increase by leaps and bounds, with a consequent over-production after about six years. Rubber consumption is also very inelastic although there is a certain amount of compensation from the reclamation of rubber in times of high prices.

Other raw materials play a much smaller part in the market position, as the amount of their yearly production is comparatively meagre. Of the raw materials discussed, wheat is by far the most important in relation to the trade cycle.

Under the monetary system of the last decade, we have been accustomed in the West to express our prices in money, the value of which has been bound up with gold. For the sake of this system international society keeps in the vaults of note banks and treasuries 30 milliard guilders in gold. In order to bring about a better economic organization, we must link up money with those products of greatest importance to the state of trade, namely, wheat, sugar, cotton, coffee, and rubber, particularly wheat, since the prices of sugar, cotton, coffee, and rubber are being compulsorily regulated from year to year by international agreement. I have chosen wheat because, as already said, this has an extraordinarily great influence on trade conditions, much greater than that of any other product. Free price formation for the other four products also raises great difficulties, as explained above.

We can link up the value of money with the products mentioned by the setting up of international institutions, which I have called in Dutch Goederenschappen (in English, international goods stores, corn granaries, &c.). A Goederenschap, or goods store, is an international institution to finance the world stock of a given commodity to the extent to which the commodity is offered to it and which administers this stock and regulates the price of the commodity on the world market. A Goederenschap can fix the desired buying and selling price. It would be bound to buy or sell at the fixed prices any and every quantity, which is supplied or demanded, of the product in question. (Not a definite quantity as was purchased at the time by the American Farm Board, but any and every quantity.) Money would be brought into circulation against the value of the goods in the Goederenschappen

and distributed among the co-operating countries. These goods would thus be financed with new money and not with credit.

The losses which these international institutions would necessarily incur would consist of shrinkage and storage expenses and would have to be paid by the co-operating countries. There would therefore be just as little need to charge interest as with the storage of gold for monetary purposes.

These Goederenschappen would have to be set up to begin with by the Western countries. The cost of storage might be allocated between the co-operating countries according to their financial resources, the total monetary circulation each year being taken as the basis (see Table II). The amount of money in circulation offers a much better standard than the population because the business barometer for the most part goes up and down in harmony with the amount of money in circulation.

TABLE II. Distribution of Annual Costs of 'Goederenschappen'

								per	cent.
U.S.A									25
France .									12
England .									9
Germany.									8
Argentina									7
Italy .									Ś
Spain .									4
British Ind	ia								3 1
Brazil									2
Netherland	.s								13
Belgium .						_			1 1
Czechoslov	akia							-	11
Australia .								•	1.1
Switzerland	ł					•	•	•	ĭ
Yugoslavia				•	•	•	•	•	_
Poland .		•	•	•	•	•	•	•	0.9
Egypt .		•	•	•	•	•	•	•	0.9
Austria .		•	•	•	•	•	•	•	0.8
Sweden .		•	•	•	•	•	•	•	0.8
Dutch Indi		•	•	•	•	•	•	•	0.4
Dutch Indi	es	•	•	•	•	•	•	•	0.4

If we wish to restore the price-level of 1929—amongst other things because most international debts which are now a burden on national finances and on business life were entered into in the period between 1915 and 1929, that is to say during a high price-level—then the prices would have to be (in Dutch florins): wheat, 13.0 per 100 kilo; sugar, 15.0 per 100 kilo; cotton, 1.0 per kilo; coffee, 0.80 per kilo; and rubber, 0.60 per kilo. (The cost of production of rubber has gone down considerably in the last few years.) It should be

noted that in calculating these prices I have not taken into account the exchange fluctuations which have taken place in most countries during the crisis.

In Table III are shown, in the first column, the world stocks of the products in question, as they would approximately have been taken up if *Goederenschappen* had been set up in 1933; in the second column the prices on which it would have been necessary to base the valorization; in the third column the total sums which would have been involved; in the fourth column, the yearly expenses connected with storage; and in the fifth column the total amounts of storage costs yearly if the stocks had remained constant.

Table III. Estimated Transactions in World Stocks by 'Goederenschappen' (on basis of 1933)

Commodity	Stock in metric tons	Valorization price in guilders per kg.	Total value of stock in guilders	Yearly cost of conserva- tion in %	Total yearly cost of conserva- tion in guilders
	millions		millions		millions
Wheat	8	0.13	1.040	9	94
Sugar	3	0.13	450	12	54
Cotton	1.5	1.00	1.200	7	105
Coffee	1.5	0.80	1.200	6	72
Rubber	0.6	0.60	0.360	5	18
Total			4.220		343

In addition to the 30 milliard guilders of monetary gold which is already stored by Central Banks, &c., there would have to be stored at the outset in the *Goederenschappen* $4\frac{1}{2}$ milliard guilders in commodities. The yearly expenses necessary for the storage of this quantity would be about 340 million guilders, or about fl. 0.60 (1 mark, 15.6d., 40 cents) per head of the population of the Western countries, counting upon a co-operation of about 600 million people. This is, per head, something less than 1 per cent. of the taxes paid by every Dutchman yearly.

As stated, the price of wheat would be definitely tied up once and for all to gold, and consequently to money. The prices of the other raw materials would have to be capable of adjustment to allow for changes in costs of production relative to those of wheat, or for relative changes in demand. This would express itself in the yearly increase or decrease of stocks of those commodities (sugar, coffee, cotton, or rubber). With the fixing of the price of coffee and rubber, any extension of production and consumption would have to be carefully watched, because an increase in production cannot be

achieved until a certain number of years after the extension of plantings. With these products it is thus of advantage to have fairly large stocks in the *Goederenschappen* in order to prevent further shortages.

By the valorization of these products, and thus indirectly also of the remaining agricultural products, the purchasing power of the farmer would be again restored and indirectly industrial production would be once more revived. Unemployment would go down and the price-level of the non-valorized products would inevitably increase by degrees. This increase in the price-level would be brought about by the fairly considerable expansion of the production of the valorized products which is to be expected at the beginning; but owing to technical obstacles this expansion could hardly be so great that world stocks at the commencement would have to increase by more than 1 to 2 milliard guilders per year. The greater amount of money in circulation therefrom would bring about a higher price-level of the non-valorized products, and by this means, after a few years, expansion of the production of the valorized commodities would be automatically retarded, as is now the case under the gold standard with gold production.

If after four to six years the world stock of wheat, sugar, cotton, coffee, and rubber amounted to more than 10 milliard guilders, the commodity basis of money, which to-day amounts to about 30 milliard guilders, would be extended up to about 40 milliard guilders. This extension would certainly be enough to stimulate the price-level to a certain extent, so that stocks of wheat, &c., would again go down. Through stocks becoming less, a lower price-level would again in course of time be brought about; whereupon the production of wheat again would be stimulated and so on.

An orderly discount policy through international co-operation of the Central Banks and an intelligent business cycle policy on the part of the authorities, in association with the execution of public works, would be of great importance in regulating world stocks of the valorized products and might assist in keeping stocks at not more than 10 milliard guilders. In that case, the yearly costs per head of the population need only be fl. 1.50 (3s. 9d., \$1.0), that is to say, a negligible sacrifice compared with the vast interests affected by a mastering of the trade cycle. At the same time an orderly discount policy and systematic national policy might have a steadying effect on the market fluctuations which might occur in spite of the Goederenschappen.

If we assume the setting up of Goederenschappen in 1929 and bring the position of 1932 into the picture of the money, credit, and capital structure (see Fig. 1), then we see that out of the stocks of commodities there comes into the *Goederenschappen* as much as trade can dispense with. (According to the estimates in 1932, for about 5 milliard guilders.)

The basis of capital will then be as follows:

- (p) Monetary stock of commodities of the Goederenschappen, about milliards.
- (a) Monetary gold stock of the note banks, plus gold circulation, about 31 milliard guilders.
- (c) Total capital, about 2,850 milliards.

The extent of money and credit would then have amounted to:

- (b) Gold and note circulation, plus credit balances of the note banks, about 60 milliard guilders.
- (d) Commercial bank deposits, about 215 milliard guilders.
- (e) Bonds and mortgages, about 1,600 milliard guilders.

In this case a larger monetary circulation supports a somewhat lower yield of money; hence a tendency would arise for a reduction of the rate of interest on bonds, leading to a stimulation of economic life and to a rise in prices of the non-valorized commodities. (This would provide an automatic check to an expansion of production of the valorized commodities.) The greatest importance for stability in the value of money rests with the *Goederenschappen*, from the fact that, as a consequence of the stable prices of the most important commodities, there can no longer be such great differences between the yield of shares (and therefore between industrial enterprise) on the one side and bonds on the other.

Whilst with Goederenschappen the gold standard would remain in existence and gold can and must be used for the stabilization of the rate of exchange in international dealings—so that gold can never remain distributed quite uniformly in the Central Banks of the cooperating countries—the money which is given against the products stored in the Goederenschappen would be distributed in a fixed ratio among the co-operating countries (in the same way as the costs of the storage would be uniformly distributed).

The establishment of *Goederenschappen* presupposes the abolition of trade barriers which stand between the co-operating states, as well as the other national economic measures directed against co-operating states. It also presupposes a definitive currency stabilization which obviously would be correspondingly facilitated by the *Goederenschappen*.

Unfortunately there is not enough time to go into this matter in greater detail. To make things clearer, I have enclosed a graphic

representation (see Fig. 2), which contains a possible development of stocks and trade cycle policy relative thereto. I have described both more fully in my book: 'Mastery of Trade Cycles by Goederenschappen'.6

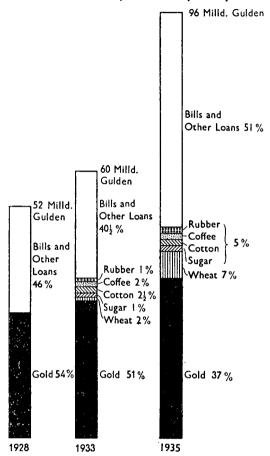


FIGURE 2. Growth of value of assumed valorized Stocks and assumed Currency Circulation, 1933-5

From the establishment of these Goederenschappen, agrarian producers, in the first instance producers of agrarian staple products, but indirectly also producers of finished products, would be able to reckon on a more stable purchasing power. This stable purchasing power would cause neither a 'boom' demand on the part of the farmer, nor would there take place a great temporary destruction of

⁶ Conjunctuurbeheersching door Goederenschappen, published by D. B. Centen, Amsterdam, 1933.

purchasing power by price reductions. Fluctuations in business would be repressed in this way, so that the establishment of *Goederenschappen* would be neither a one-sided interest of the producer, nor a one-sided interest of the consumer, nor a one-sided interest of the raw-material-exporting country. The setting up of *Goederenschappen* would be of general international interest for Western countries, and the costs must consequently be borne jointly by the countries in deliberate co-operation.

Thanks to the stable purchasing power of the farmer, industrial crises could no longer be so violent, while the fluctuating purchasing power of the rural population could no longer cause such big disturbances in industrial business life. It is true that through larger or smaller harvests, slight temporary deviations might be caused in economic activity. In this way the general price-level would fluctuate much less than hitherto, and periodically occurring unemployment would not be so great. It is obvious that the present crisis has been too extensive to arrange for the setting up of Goederenschappen before the end of the depression. The shrinkage of production in many cases is so far advanced that even if a wheat Goederenschap were set up now, the stocks of wheat would completely disappear within two years, because production would, for the time being, lag behind the consumption. At the same time, the mentality of the Western countries to-day is not yet ready to make another sacrifice, whereby raw material prices would be raised. This could not be expected to-day from the groups of consumers (including also the live stock industry) who are suffering so much from the crisis. Moreover, for this international co-operation the currency of the co-operating countries would have to be stabilized at a corresponding level and it seems that the countries of the 'gold bloc' are not ready for this today. All national crisis institutions and trade hindrances would also have to be done away with, which perhaps no one would dare to do to-day. It will probably be necessary to wait until the crisis is past, which, in my opinion, will soon be the case. The end of the depression will be caused by a scarcity of a number of agrarian products. This will cause prices to rise and the depression will gradually disappear. Probably the purchasing power of the farmers at the end of 1935, with a comparatively good harvest, will be sufficiently great to bring new activity to the industry. The damage to international trade can probably not be made good entirely, although with the disappearance of the crisis a large number of the measures called into life by the crisis may be automatically rescinded.

It is, however, urgent and necessary for Western countries to leave

no stone unturned to prevent a subsequent reduction in price of agrarian staple products. For this purpose the building up of the necessary organization should be prepared from to-day onwards with all speed, so that this organization may be ready in good time. In this organization *Goederenschappen* will be an indispensable link which will prevent both a general bankruptcy of farmers and a universal shortage in raw materials, and which, by the necessary intensive international co-operation, will contribute to a peaceful understanding of peoples, to an increase in the common weal, and consequently to the development of arts, science, and religion.