GOLD AND CENTRAL BANKS

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GOLD AND CENTRAL BANKS

BY

FELIKS MLYNARSKI, Ph.D.

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I. INTRODUCTION

Gold is a means for settling differences in the balance of the international exchange of commodities and services. It is only natural therefore that the changes in the repartition of gold among the separate markets approximately correspond to their share in world trade. If we compare the years 1913 and 1925 the distribution of gold and the general trend of world trade will be illustrated by the following figures: [1]

I. Quantitative Changes in the Volume of World Trade

	1913	*1925*
Europe including Russia	100	89.3
North America	100	136.7
South America	100	96.7
Asia	100	135.9
Africa	100	99.0

[1] At the time of writing, March, 1928, the year 1925 was the last year for which the statistics of world trade, published by the League of Nations in the "Memorandum on Production and Trade," were available. Repartition of gold quoted from *Wirtschaft & Statistik,* 1927, N. 15.

II. Monetary Stocks of Gold in Relation to World Gold Reserves

	1913	*1925*
Europe	58.8%	31.6%
United States of America	19.2%	42.9%
Other American Countries	6.5%	9.6%
Asia	11.0%	11.5%
Africa	2.3%	1.3%

The volume of European trade in 1925 as compared with 1913 showed a decrease of about 10% below its pre-war level. The ratio of the monetary stocks of gold in Europe to the world total decreased in the same period from 58.8% to 31.6%. The parallelism of these two phenomena will be still more striking if we take into consideration that in 1925 Europe's share in world trade was 15% lower than in 1913.[2]

In the years 1926 and 1927 European trade made some progress. The European demand for gold rose simultaneously. The monetary stocks of gold in Europe increased in the years 1926 and 1927 by about 450 [3] million dollars. If we take into account also the years 1924 and 1925, the increase in the total monetary stocks of gold in Europe will amount to 19.5%, or 4.86% yearly. The simultaneous increase in the world stocks of monetary gold not including gold hoarded in India

[2] Quoted from Memorandum p. 8.

[3] *Wirtschaft & Statistik,* January, 1928, No. 1, p. 40.

did not exceed 1.92% yearly. The increase in the United States amounted to 0.82% yearly. The year 1927 was the first in which the outflow of gold from America assumed considerable and not casual dimensions as it amounted to 151 million dollars. This sum includes not only the exports but also gold earmarked on behalf of European banks.

Europe's economic reconstruction becomes an increasingly powerful magnet attracting gold. The further expansion of European trade will entail a further increase of the European demand for gold. Will it be possible to adapt the rate of Europe's economic reconstruction to the rate of the supply of gold and how is this to be done? Will the production of gold prove sufficient? Will the countries which have an abundance of gold be able to give back their surplus? Can they face an outflow of gold in dimensions equal to the inflow caused by the World War? Is a complete repatriation of European gold possible?

These are questions which are a source of anxiety to the whole world. For the general tendency of prices seems to indicate that the rate of the European demand for gold is not proportional to the output of gold mines and to the ability to carry out a repatriation of the old stocks of gold. If we take the same four years 1924-1927 and compare the average annual indices of wholesale prices we have the following table:

	1924	*1925*	*1926*	*1927*
England	166	162	148	142
Holland	156	156	146	146
Switzerland	176	164	146	146
Germany	136	141	135	137

The level of prices showed distinctly a downward movement which seems to prove that the demand for gold was greater than the supply. The purchasing power of gold thus showed an upward tendency. Should this process prove continuous, we shall be confronted with a steady fall in prices. Therefore either the purchasing power of gold will be stabilised, or Europe's reconstruction will be stopped half-way, as a continuous fall in prices sooner or later is bound to bring about a slump in production and trade.

To stabilise the purchasing power of gold, however, would mean to abandon all day-dreams of a return to the pre-war level of prices. Although after the war the pre-war level of prices has become an ideal for the masses, there is no good reason for this. The high cost of living in pre-war times also was a calamity afflicting humanity. In the period from 1900 to 1913 the general level of prices rose by about 25%. The eagerness with which the population abandoned their employment in order to enlist for the army proves that general dissatisfaction was current. Only when we had fallen out of the frying-pan into the fire, did we begin to idealise pre-war conditions and this notion found an outward expression in the general habit of adopting the pre-war level of prices as a basis for calculating price indices. This habit contributed to strengthen the belief of the public in the alleged advantages of a return to the pre-war level of prices.

The year 1927 marks a turning-point in this respect. Two countries ceased to adopt the year 1913 as a basis for price indices. Poland was the first when in February, 1927, she adopted the average prices of the first half of 1925 as the basic 100. In October, 1927, the same step was taken by the Bureau of Labour of America which adopted the average prices of 1926 as 100. The step taken by America has a significance for the whole world, as the American price level is the key to the problem of prices in all other countries. The stabilisation of American prices necessarily compels the whole world to gravitate towards this level.

It is interesting to note, that the adoption of a new basis of price indices was achieved in the atmosphere of a conflict over the alteration of the Statutes of the Federal Reserve System along the lines that the maintenance of price stabilisation should be the legal duty of each Reserve Bank. And although Benjamin Strong during the debate on this question successfully opposed another Mr. Strong who moved this amendment in the Congress of the United States, the actual policy of the Reserve Banks is developing, as far as possible, on the same lines and so far with satisfactory results.

It is commonly accepted that the depreciation of gold in relation to its purchasing power in 1913 amounts to about one-third, the advance in prices over the same period being about 50 per cent. Is this level justified?

In the period from 1900 to 1913 inclusive the production of gold caused an inflow of new gold to the amount of 5.423 mil. dollars. In the following years up to 1925 inclusive the inflow of gold derived from new production amounted to 4.654 mil. dollars. The rate of increase in world gold reserves during the period 1900-1925, amounting to 52%, was the highest on record. The output of gold in 1915 was also the largest which was ever recorded. Such a large inflow of gold derived from new production was bound to cause an upward movement of prices, which in the period 1900-1913 had already risen by 25%. Even if the World War had not broken out we should have witnessed a further upward movement of prices.

During the World War a number of countries abandoned the gold standard for their currencies and withdrew their demand for gold from the world market. The strongest pressure in the supply of new gold thus coincided with a sudden contraction of the demand. It would be difficult to conceive a more unfavourable combination of circumstances for the rôle and the value of gold. It is only natural, therefore, that during and after the World War we witnessed great advances of prices not only in countries possessing a paper currency but also in those whose currencies were on a gold basis.

Having witnessed during and in the first few years after the war several periods of inflation and deflation we have reached now a stage in which the purchasing power of gold has become more or less stabilised at a level about one third below the 1913 average. At such a level the world trade is making progress. In 1925 its volume exceeded that of 1913 by 5% and is steadily increasing from year to year. Similarly the production of gold is showing satisfactory results. During the period 1924-1927 it averaged 81.5 mil. pounds sterling yearly. Thus, neither the development of trade nor the production of gold is hindered by the present level of prices, which seems to indicate that the present level of the depreciation of gold is a natural phenomenon.

This condition of affairs presents itself in a different light if examined from the monetary point of view. The world currency circulation in the period from 1913 to the end of 1926 rose by 30.8%. Simultaneously the increase in the population (in 1925 5% greater than in 1913) in the production of raw materials (in 1925 16% greater than in 1913) and in the international trade (in 1925 5% over the volume of trade in 1913) only partially neutralised such a considerable expansion of currency circulation. The slight influence of these factors was in addition more than counterbalanced by the great expansion of cheque circulation and a greater velocity of the currency circulation in countries which passed through a devaluation of their currencies. As already stated prices rose on the average by 50% or much more than the currency circulation increased. It would be difficult to understand this disproportion without taking into consideration a new factor: namely the introduction and the development of the gold exchange standard.

The central banks which have adopted the gold exchange standard refrain from purchasing gold and use foreign bills drawn in currencies convertible into gold as cover for their note circulation. This system is adopted to-day by the majority of central banks. The amount of foreign exchange so accumulated reaches at present the sum of more than 2 billion dollars, this being the total amount of deposits of central banks held in countries in which the currency is convertible into gold. This sum constitutes at least 19% of the total world stocks of monetary gold. It is evident, therefore, that the legitimate demand for gold resulting from international trade during the period 1913-1926 decreased by about 19%. The contraction of the demand was bound to cause a depreciation of gold and a rise in prices.

Should the central banks, instead of hoarding foreign exchange, convert such into gold, the additional demand for gold to the extent of 2 billion dollars would bring about a drop in world prices to considerably beneath their present level.

The increase in the currency circulation has the same effect on prices as the supply of new gold. The contraction of the demand for gold exercises a similar influence on prices. The first factor appeared in 1913-1926 as an increase of 30.8%. The second factor was responsible for the diminution of the increase in monetary stocks of gold by 19%. These two figures—30.8 plus 19 [4]—enable us to understand more clearly why a 50% level of advance in prices shows a tendency to become stabilised and why it hinders neither the expansion of trade nor the further production of the yellow metal, as this level is really under the present conditions a normal one. It is hardly possible however to regard it as a natural level, since it was attained largely owing to the adoption of the gold exchange standard.

The working of the gold exchange standard had some advantageous effects. This rests however on artificial foundations. Should we suddenly liquidate to-day the gold exchange standard, the level of world prices would be deprived of an important support and would be subject to acute decline. Therefore no reasonable man will insist on the immediate liquidation of the gold exchange standard and on the exchange for gold of foreign exchange reserves accumulated by central banks. The question arises, however, whether this system should continue to be applied indefinitely in the future? Should we regard

[4] This is only a symbolic addition of those two factors and not a mathematical one.

the rôle of the gold exchange standard as finished, or should we strengthen this system and try to render it as widespread as possible?

If we look back over the last 5 years, we cannot but perceive that, although the number of countries possessing stable currencies increased year by year, the international co-ordination of the different monetary systems made no adequate progress. The number of local stabilisations grew steadily, but it was and remains difficult to maintain an international stabilisation of the interdependence between the various currencies. We are still far from pre-war co-ordination and the automatic effects of the gold standard on the level of world prices.

There are two outward signs of this lack of international co-ordination and currency equilibrium.

The first is the excessive dependence of the credit policy of European central banks on the American rate of interest. Austria [5] for example cannot lower its discount rate to a level corresponding to her domestic market, as she cannot incur the risk of a withdrawal of short-term foreign credits. Similar conditions prevail in Germany and even London is not free from this dependence.

America cannot freely raise its discount rate for fear of being flooded with gold. Europe, on the contrary, cannot lower its rates freely lest the inflow of foreign capital be checked.

[5] Prof. Reisch, President of the Austrian National Bank, in *Neue Freie Presse* of Dec. 25, 1927.

Simultaneously on both sides of the ocean the long-term creditor was and is to a large extent financed by the short-term creditor. Some countries are compelled to carry on nowadays the policy of borrowing for short terms, in order to be able to grant loans for longer periods. Under this abnormal process the deposits of the central banks which have adopted the gold exchange standard play an important rôle, for they constitute a mobile mass of capital, which is transferred from one market to another depending on the rate of interest. This system was unknown in pre-war times and owing to its absence the monetary system could work automatically. Nowadays the automatic system is replaced by the manipulation practiced both by banks with a gold standard and by banks which have adopted the gold exchange standard.

The second sign of this lack of equilibrium is the weakness of the London gold market. The reserves of the Bank of England are not sufficiently large to permit the exchange for gold of sterling deposits belonging to banks which use the gold exchange standard. Similarly the inflow of new gold derived from the mines is not sufficient for this purpose. As a result, every large purchase of gold in London gives rise to alarm, and that not only in London, for the question of the value of gold is not a local one. The purchases of gold by the Bank of France and the Bank of Poland effected in 1927 afford an example of this alarm, although they were made in agreement with all interested banks.

What policy should be adopted by banks which have already accumulated excessive amounts of foreign exchange and whose deposits prove embarrassing for both parties?

As long as the gold exchange standard is adopted only by small banks, this system works smoothly. The situation changes when this system becomes general—particularly when the great central banks make use of it, as for example France. Sooner or later difficulties are bound to arise, for the accumulation of foreign exchange reserves will attain embarrassing dimensions for both parties. This accumulation at present constitutes about 20% of the world stocks of monetary gold. It is only natural, therefore, that up to 1927 the gold exchange standard worked smoothly, whilst beginning with 1927 it became a burden.

Will it become less embarrassing if it continues to be applied by almost all banks with the exception of a few gold centres? Even the adherents of a "managed currency" are beginning to ponder whether this "hoarding process,"[6] which complicates the debits and credits between nations and constitutes a new type of problem for the present generation, must not come to an end.

This problem must chiefly be solved by Europe,

[6] I. M. Keynes, "The British Balance of Trade" in *The Economic Journal,* December, 1927.

for a return to gold in Europe does not at all mean a return to the pre-war system of a gold standard.

The pre-war system of a gold standard consisted in an unlimited convertibility of notes into gold coins or bars, in the free export of gold and in a free and abundant circulation of gold coins in the country. For fear of a feverish demand for gold after the World War, the Genoa Conference raised the slogan of economising gold and for this purpose advocated the co-operation of central banks. In accordance with these recommendations the restoration of a circulation of gold coins was abandoned and the gold exchange standard was adopted on a large scale. Gold was withdrawn from circulation and its rôle was limited exclusively to the regulation of foreign net payments. The gold exchange standard, which before the war was a rare exception, after the war became the rule. On the one hand are grouped the few countries which play the part of gold centres; on the other, the majority of countries, whose currencies are based on their foreign exchange reserves. The exports of gold coins have given way almost entirely to the exports of gold bars. These exports are free only in the gold centres, other countries for the most part placing embargoes on such exports.

In this way the pre-war system of a gold standard was in Europe split into two different forms: the gold bullion standard, applied by gold centres, and the gold exchange standard adopted by those countries which do not play the part of gold centres and which limit themselves to the accumulation of foreign exchange reserves. The co-operation of central banks was to have regulated the co-ordination of these two systems with the object of protecting the world against a deflation crisis, which would be imminent if an unregulated demand for gold should raise its purchasing power excessively and bring about a prolonged decline of prices.

All seemed to be right, as long as the accumulation of foreign exchange reserves did not attain excessive dimensions. But when they reached the level of 19% of the world stocks of monetary gold, it became evident that there was a lack of sufficient co-ordination of the gold exchange standard with the gold bullion standard. The recommendations of the Genoa Conference were not uniformly realised. The gold exchange standard made excessively rapid progress, whilst the co-operation of central banks lagged behind. This upset the equilibrium between the two systems and as long as this equilibrium is lacking, the consolidation of European currencies, attained by strenuous efforts, gives ground for anxiety.

It is gratifying that all concerned are trying to avoid the danger arising from a further increase in the purchasing power of gold and recognise the necessity of economising gold. Likewise it is sound policy that all realise that there is a lack of adequate co-ordination of the gold bullion standard with the gold exchange standard. Only opinions regarding methods by which these difficulties should be overcome differ.

Criticisms are in accord; only the proposed remedies are divergent.

Some would desire to continue with a small number of gold centres and to protect them against the risk of desertion by banks which apply the gold exchange standard by means of special international treaties in lieu of the present unofficial arrangements. Others would like to increase as far as possible the number of gold centres and to limit, on the other hand, the application of the gold exchange standard and the accumulation of foreign exchange reserves by central banks. In both cases the co-operation of central banks in a more official form than the present personal contact of the governors of such banks should play the leading rôle. Two questions therefore arise:

1. Is the scheme for the legalisation of a small number of gold centres with widespread and unlimited accumulation of foreign exchange reserves by the rest of the banks workable?
2. Is it not possible to find a better form of co-ordination between the gold bullion standard and the gold exchange standard?

We should not delude ourselves. Europe's return to gold remains a problem to be solved.

II. SHORTAGE OF GOLD

The production of gold before and after the World War was as follows:

Year	*Millions of Pounds Sterling*	*Year*	*Millions of Pounds Sterling*
1908	88.4	1922	65.5
1909	90.6	1923	75.5
1910	91.0	1924	81.0
1911	92.2	1925	81.0
1912	93.0	1926	82.0
1913	91.9	1927	82.0

In the years 1924-1927 the output of gold showed a marked improvement. Nevertheless it was still over 10% below the pre-war level and about 15% below the production of 1915 which was the highest on record amounting to 96.4 mil. pounds sterling.

Simultaneously the world trade showed a more rapid recovery. The quantum [1] of world trade in 1925 exceeded the pre-war level by about 5%. If we take the quantum of trade in 1913 as 100, the changes in the quantum of world trade in the years 1924-1925 will be as shown by the following table:

[1] Memorandum on Production and Trade, League of Nations, p. 35.

Territories	*1924*	*1925*
Europe including Russia	84.5	89.3
North America	126.4	136.7
South America	90.9	96.7
Africa	96.5	99.0
Asia	123.2	135.9
Australia	118.4	132.3
The Whole World	97.9	104.5

A comparison of the figures of the production of gold with those of world trade reveals that the output of gold in the period 1924-1927 showed a tendency towards stability, whilst the world trade displayed a tendency to increase. It is a disquieting disproportion.

The stabilisation of the production of gold is the result of a retrogression in the output of the mines except those in Transvaal, Canada and Russia

PERCENTAGE SHARE IN WORLD PRODUCTION

Year	*U.S.A.*	*Mexico*	*Australia*	*Rhodesia*	*British India*
1912	20.0%	5.3%	11.7%	3.1%	2.4%
1926	11.3%	3.9%	3.2%	3.0%	2.0%

The dominant rôle of South Africa in the world production of gold is illustrated by the following figures.

PERCENTAGE SHARE IN WORLD PRODUCTION

Year	*South Africa*	*All other Countries*
1912	45.4%	54.6%
1926	55.0%	45.0%

If we do not take into account Russia, whose production, although it is steadily recovering, did not even before the war play any important part, Canada is the only territory showing to-day a large increase:

Production in Kg.

Year	South Africa	Canada
1912	283.318	19.032
1926	309.717	53.778
Percentage Increase	+8.1%	+182.5%

The percentage increase in the production of Canada is impressive. The illusion vanishes, however, if we examine the figures of production calculated in kilograms. In 1926 Canada's production hardly constituted 17% of the production of South Africa. Should the production in Transvaal show a rapid decline, this could scarcely be offset by the further increase in Canada.

All experts are in accord in the anticipation that the present stabilisation of the production of gold cannot be maintained in the future. The output of the mines in Transvaal has already reached its peak point and we are on the eve of its decline. The official engineer of the Government of South Africa, Sir Robert Kotze, estimates the probable decline in the output of the mines in the next ten years at 48%. Mr. Joseph Kitchin, Director of the Union Corporation, one of the largest mining enterprises in Transvaal, who is less pessimistic, prophesies that in 1934 the production of South African gold will be about 30% lower than at present and that this loss will not be offset by an increase in the production of other countries.[2] He does not anticipate an increase in the annual production of Canada greater than 8½ million pounds sterling, whilst at the end of the year 1934 the deficiency in the production of Transvaal will amount at least to 14 mil. pounds.

If we accept Kitchin's estimates, we cannot anticipate in the years 1929-1934 a production greater than 73 mil. pounds, or about 365 mil. dollars, yearly. In comparison with the production of the period 1924-1927, amounting on the average to 81½ mil. pounds yearly, we must anticipate a decline of 10%. As compared with 1914 the year 1934 will show a decrease exceeding 20%. It is moreover not probable that, of the new gold to the amount of 73 million pounds yearly, the portion used for industrial purposes or hoarded by the public will during the period 1929-1934 so diminish as to allow a greater inflow of gold for monetary purposes than heretofore. Lehfeldt estimates the annual amount of gold used for industrial purposes, or hoarded,[3] at 40 mil. pounds.[4] Kitchin estimates it higher and arrives at the conclusion that during the period 1929-1934 we shall not be able to dispose of an inflow of gold for

[2] Report of the Royal Commission upon Indian Currency and Finance.

[3] Chiefly the absorption of India.

[4] "Controlling the Output of Gold."

monetary purposes greater than about 25 mil. pounds or 125 mil. dollars yearly.

If we accept Lehfeldt's estimates, the inflow of gold for monetary purposes in the period 1929-1934 will be greater and may perhaps reach 200 mil. dollars yearly. This would approximately correspond to the present requirements for monetary gold which vary from 150 to 200 mil. dollars yearly.[5]

The statistics of gold are not, however, sufficiently accurate. It is risky to rely entirely on the opinion of one expert only. It will be safer, therefore, to assume that during the period 1929-1934 the inflow of gold for monetary purposes will vary within the limits of the estimates of Kitchin and Lehfeldt, i.e. that it will be somewhere between 125 and 200 mil. dollars yearly. In relation to the total world monetary stocks of gold this inflow will constitute less than 2% yearly. The level of 2% will be attained only exceptionally owing to a particularly favourable combination of conditions, affecting production.

As late as in the year 1926 an increase in the production of gold above the current requirements seemed possible.[6] The investigations carried through by the Royal Commission for monetary reform in India put an end to all doubts in this respect. It is

[5] W. Randolph Burgess, "The Reserve Banks and the Money Market," 1927, p. 269.

[6] McKenna in *Midland Bank Monthly Review,* January, February, 1926.

beyond dispute that the output of the South African mines has already passed its peak and that the rate of the exhaustion of the African gold deposits will be more rapid than the rate of the increase of production in Canada and Russia. The policy of central banks must reckon with this fact and cannot be based on a purely theoretical assumption that in the meantime new and exceedingly rich gold-bearing strata will be discovered. It is necessary, therefore, to revise the opinion that the inflow of gold and economic progress should be in a state of perfect equilibrium. Should this be the case,[7] in about 15 years the production of gold would not be, in fact, able to cover more than 50% of the requirements for monetary gold.

We find in the theory of Prof. Cassel a classic example of the opinion that every year the influx of new gold and the world economic progress should be in a state of perfect equilibrium. According to this theory: [8] "the general rate of economic progress has been, during the half century before the war, about 3 per cent per annum." In view of this fact "we must, of course, have an annual production of gold corresponding to the general rate of economic progress of the world, and in addition, sufficient to cover the yearly waste of gold." The "normal annual demand for gold" of all sorts "amounted during the

[7] Cassel in "Skandinavska Kreditaktiebolaget," October, 1926.

[8] Gustav Cassel, "The World's Monetary Problems," London, 1921, p. 63, 82.

period 1850-1910 on an average to about 3 per cent of the total accumulated stocks of gold in the world at the time." The yearly waste of gold amounts to 0.2%—the necessary increase of gold for monetary purposes therefore should amount to 2.8%. As we have seen above, during the period 1929-1934 we cannot expect an inflow of gold exceeding 2% and for this reason, in case Cassel's theory is true, we should be faced in the near future with a shortage of gold amounting at least to 0.8% of the accumulated stock yearly.

Cassel's theory proceeds from the assumption that in view of a 3 per cent rate of economic progress we must have an increase of monetary gold of about 3%. This assumption is based on the fact that the levels of prices in 1850 and in 1910 were more or less equal, which proves that during the period 1850-1910 the rate of economic progress was on the average 3 per cent per annum, this being the average yearly increase in the world stocks of gold.

A comparison of the level of prices of 1850 with that of 1910 reveals in fact that these levels were almost equal. What was the general trend of prices, however, between 1850 and 1910? The indices of prices calculated by Jevons and Sauerbeck inform us that during the period 1850-1873 prices rose by 44% and that in the following period 1873-1896 they declined by 45%, whilst in the period 1896-1913 they increased again by about 40%. The period 1850-1910 was therefore marked by strong fluctuations in both directions. Thus we see that neither the rate of economic progress nor the rate of the inflow of gold could have been all the time uniform. The 3 per cent average yearly increase is a statistical fiction. The actual course of events was quite different.

The adoption of the period 1850-1910 as a basis for conclusions gives rise to criticism also for other reasons. It was by no means a normal period. In its early stages it was marked by the discovery of large gold deposits in California and Australia. Toward its close it witnessed the discovery of still richer gold deposits in South Africa. The middle of the period was one of the demonetisation of silver, of a general adoption of the gold standard and of an exceptionally strong demand for gold. The period under consideration was at the same time one marked by an unusual rapid progress of industrial technique. The great inventions, which gave to the whole century the name of the epoch of steam and electricity, were largely made during this very period. Why the level of prices in 1910 was equal to that of 1850 it is difficult to-day to explain in view of the lack of sufficient statistical data. The level of 1850 might have been the result of a supply of goods greater than the supply of gold, whilst the level of 1910 might have been the outcome of a predominance of the supply of gold over the supply of goods.

Let us now examine the post-war facts.

During the period 1923-1927 the monetary stocks of gold in Europe increased by 19.5%, or 4.86% yearly. In 1927 the increase amounted to 5.4%. Simultaneously the world stocks of monetary gold, excluding gold hoarded in India, increased by 7.7%, or 1.92% yearly. The increase in 1927 amounted merely to 0.75%. In the United States of America the increase during the five years was only 3.3%, or 0.82% yearly. In 1927 America registered a net outflow of gold to the amount of 151 mil. dollars.

What was the simultaneous tendency of prices?

In Europe in spite of an inflow of gold amounting to 4.86% yearly, the prices showed a downward movement. Prof. Cassel himself quotes as an example [9] that the English index fell from 165 in July 1925 to 149 in February 1927. The Swedish index during the same period declined from 161 to 146. The average annual indices quoted by us in the first chapter reveal the same tendency. With an inflow of gold exceeding 3% yearly, Europe experienced a downward tendency of prices instead of an upward one.

The inflow of gold to America from 1923 to 1927 on the average amounted to only 0.82% yearly. In 1927 the American gold reserves declined even by about 2.3%. In accordance with Cassel's formula the prices should have fallen materially since 1923, for the inflow of gold was much lower than the necessary minimum. The level of prices, however,

[9] "Skandinavska Kreditaktiebolaget," July, 1927.

calculated on the new basis, i.e., the average prices of 1926 being adopted as the basic 100, reveals quite distinctly a tendency towards stability with only a slight downward movement in early 1927.

According to indices quoted by Cassel [10] the general trend of prices was as follows:

1923......	100.6	April,	1927......	93.7
1924......	98.1	July	"	94.1
1925......	103.5	Sept.	"	96.5
1926......	100.0	Nov.	"	96.7

During the period 1923-1926 the fluctuations of the annual indices were minimal and showed a pronounced tendency to stabilise. The fluctuations of the monthly indices in 1927, i.e., in the year marked by an outflow of gold, displayed an upward tendency instead of a downward one. This is confirmed by the weekly index calculated by Professor Irving Fisher, which rose from 137.8 on July 21, 1927, to 146.1 on December 8.

The riddle of American prices according to Cassel is explained by the "responsibility" [11] of the discount policy for the tendency of prices. He emphasises that "the discount policy of the central bank is, in fact, the decisive factor in regulating the internal purchasing power of a currency and consequently in establishing the general level of prices." Apart from the "objective" phenomena such as the

[10] "Skandinavska Kreditaktiebolaget," January, 1928.
[11] "Skandinavska Kreditaktiebolaget," January, 1928.

inflow or outflow of gold, the credit policy of a central bank, the so-called "subjective" manipulation, plays a not less important part, if not even a decisive one. This influence upsets Cassel's whole theory. If we take into consideration moreover that the increase in the production of commodities is regulated by local factors, that it depends on local natural conditions, organisation of labour, technical inventions and improvements and a whole series of other circumstances, we must all the more arrive at the conclusion that the problem of the value of gold is not so simple as to be explained by an arithmetic formula.

Gold never possesses a general purchasing power uniform in the whole world. Actually its purchasing power varies from country to country, being regulated by local production of commodities and money. The level of world prices is not and cannot be a uniform level in all countries, but signifies only an average level; that is, it is a statistical fiction. If we speak about a level of world prices we state merely that there exists an interdependence between the local levels of prices and this dependence is in a state of equilibrium, i.e., the divergences do not exceed the natural limits resulting from differences in the costs of production, transport, customs-duties, etc. The level of prices in that country which plays the most important rôle in the international exchange of commodities, services and capital is a centre towards which the prices of all other countries must gravitate. The maintenance of this international equilibrium is a very complicated process and an average index of economic progress and of the inflow of gold cannot be regarded as a practical guide.

The fiction of a 3 per cent "normal" increase in practice may be even harmful. Should the central banks recognise the necessity of an inflow of gold amounting at least to 2.8% yearly, they would be compelled to strive to secure in advance such an inflow in spite of the conditions prevailing on the market. The idea of a minimal inflow, created with the object of economising gold, would stimulate the demand for gold instead of mitigating it.

Suppose now that Cassel is right and that the annual 3 per cent economic progress will be totally covered by a 3% increase in gold stocks. The additional amount of commodities and services appearing every year on the market will be counterbalanced by the additional amount of gold. The value of gold ought to be, therefore, relatively stable.

Is this possible?

Gold is less and less used as a means of payment in the form of coins, as it serves at present mainly as a basis for the issue of notes by the central banks. Such issue of notes is regulated by a reserve requirement of at least 40%. In addition other banks, which are not banks of issue, on account of an increase in deposits and in their credit activity increase the circulation of cheques, which also play the part of a means of payment. The gold reserves of the central bank are thus the basis for the issue of notes and for the additional circulation of cheques and for all other forms of non-cash payments. Therefore gold is not the only means of payment, but this rôle is played also by rights to receive gold which "serve as well as the gold itself." [12] This is one of the finest inventions of the modern economic civilisation.

Every quantity of new gold, passing from the mines into the vaults of the central banks, is thus multiplied. Not only the world gold reserves increase, but also the rights to receive gold. Should, therefore, the monetary stocks of gold increase every year in a proportion closely corresponding to the economic progress, i.e., by about 3% yearly, according to Cassel, in this way we shall not attain a stabilisation of the value of gold. For economic progress, amounting to 3%, will be covered not only by a 3% inflow of gold but in *addition by the increased issue of notes of the central banks and the increased cheque turnover*, resulting from an expansion of deposits and of the credit activity of the banks.

If we had an archaic monetary system, deprived of banking institutions and based exclusively on a circulation of coins, Cassel's formula would not give rise to such doubts as is the case to-day by reason of our modern banking and monetary system. Mone-

[12] Hawtrey: "The Gold Standard in Theory and Practice," 1927, p. 1.

tary alchemy, creating gold from paper, plays to-day a more important rôle, than the inflow of unrefined gold from the mines. Either a 3% economic progress does not require a 3% inflow of new gold, or with a 3% inflow of new gold economic progress should be much greater, if a stable value of gold is to be maintained. Should economic progress in a given year and the stocks of monetary gold both show an increase of 3%, the stabilisation of the value of gold not only will not be attained, but on the contrary, gold will show a depreciation in that proportion in which the circulation of rights to receive gold, based on a 3% inflow of new gold, will outrun the supply of other commodities and services.

The expansion of the paper means of payment is assuming more and more considerable dimensions. In the United States the huge gold reserves, amounting almost to half of the total gold reserves of the world, in 1925 hardly covered 6¾% of the notes in circulation and bank deposits combined. In England gold constituted a still smaller proportion—only 5.18% of the total amount of notes and bank deposits. For the whole world this percentage amounted to 9⅛%. It cannot be more clearly illustrated to what extent this banking manipulation, the "subjective" factor, has gained a predominance over the inflow of gold, the "objective" factor. Moreover it is not merely an internal manipulation, for it is applied also in international relations, as mankind has created such devices as the gold exchange standard, the international transfers of money by means of book entries and other forms of non-cash international payments. Under these conditions the attempt to find an arithmetic formula, which should establish the minimal, or according to Cassel's terminology the "normal" demand for gold, may lead to a very dangerous policy.[13]

The value of gold is affected not only by the output of the mines but also by the production of all other goods. It is true that the inflow of new gold from the mines will gradually diminish in the near future. It is true also that economic progress will reveal an opposite tendency, i.e., concurrently with a

[13] Somebody has calculated, *Investments*, Bankers' Trust Co., I, 1928, pp. 15-20, that under the present conditions an inflow of new gold to the amount of 392 mil. dollars yearly is necessary and that, in order to solve the problem of a shortage of gold, the cover for the total amount of bank notes and bank deposits of the whole world should be lowered from 9⅛% to 5%. In this way it would be possible to release 4 billion dollars of gold from the present reserves and this amount together with the inflow of gold from the mines would prove sufficient for a period of many years. It is very easy to raise the slogan of a reduction of gold cover. It is more difficult to carry it through. The low cover in the United States coincides with an abundance of gold. The high cover in Europe coincides with a shortage of gold. The great growth of credit structure in the United States is the result of a great national income and of a very rapid rate of increase of capital. The credit structure in Europe is smaller on account of a general pauperisation. Under these conditions how is the reduction of cover for notes and bank deposits from 9⅛% to 5% in Europe to be done? Should the banks refrain from purchasing gold, or embark on an inflation credit policy, or should they apply both these measures at the same time?

diminution of the inflow of new gold the supply of goods and services will increase. Nevertheless it is equally true that the retrogression in the production of gold and the increase in the production of all other goods will be counterbalanced, if necessary, by the progress of monetary technique. With an economical use of gold and a skilful co-operation of central banks, it would be premature to fear that on account of the deficiency in the production of gold our generation is threatened with an unavoidable deflation crisis.

Gold reserves are insufficient, or excessive, only relatively, i.e., taking into account the requirements of the foreign trade in a given country. The gold reserves of a country never are absolutely too large or too small. For just as on the internal market the scarcity of money is made good by an increase in the velocity of the circulation of money, so on the international market the shortage of the production of gold can and ought to be counterbalanced by a better technique of the circulation of gold from one country to another. Gold is elastic not only as a piece of metal, but also as a bank reserve. One should, therefore, think out a scheme for facilitating this elasticity and removing all impediments which hinder it to the detriment of the equilibrium of prices and of the general prosperity.

Here lies the centre of gravity of the problem of the value of gold.

We are faced with the danger of a shortage of gold not so much on account of changes in the production of gold as on account *of an excessive and uneconomical hoarding of gold reserves.* Not only the primary hoarding—for instance in India—comes into play, but also the secondary hoarding practiced by central banks, which cannot freely export gold and which by acquiring gold withdraw it in one-sided fashion from international circulation. The amount of gold in the vaults of the banks increases, but it does not increase in international circulation. The local reserves show steadily an expansion, but we have not a free circulation of gold from one market to another.

In view of a weakening inflow of new gold we should strengthen the working of the old reserves.

III. AMERICAN RESERVES

EUROPE'S economic reconstruction, as has been already stated, stimulates the European demand for gold. In view of an imminent downward tendency of the production of gold, it appears of paramount importance to examine the question whether the reserves of existing gold accumulated in America can return to Europe in such large amounts as to offset the deficiency in the production of gold. All the more as gold flows out more easily than it returns.

The answer to this question depends on the examination of the rôle which the gold accumulated in America plays on that market. This rôle is illustrated [1] by the following figures:

Date	*Gold Reserves*	*Currency Circulation*
At the end of 1922	3,929 million dollars	4,817 mil. dols.
At the end of 1927	4,379 million dollars	5,003 mil. dols.
Increase	450 million dollars	186 mil. dols.

During the five-year period, 1922 to 1927, *deposits* of all banks in the United States, including savings banks as well as commercial increased by about $14,000,000,000 to the level of $51,600,000,000.

[1] Quoted from *Federal Reserve Bulletin*, March, 1928.

In the statement below is presented an estimate of loans and investments of all banks in United States in midsummer of 1922 and 1927:

TOTAL LOANS AND INVESTMENTS

June 30, 1922	40,105 million dollars
June 30, 1927	54,372 million dollars
Increase	14,242 million dollars

The above statements show that in the course of 5 years the gold reserves increased by 450 mil. dollars, whilst the deposits showed an increase of about 14 billion dollars and the credits an increase of more than 14 billions. The great disproportion between the relatively slight increase in the gold basis and the pronounced growth of the credit superstructure is immediately obvious.

Simultaneously during the course of the same 5 years the currency circulation rose merely by 186 mil. dollars, i.e., remained almost unchanged. The prices, as measured by the indices, compiled by the Bureau of Labour on the 1913 base during the period between January 1922 and January 1927 rose from 138 to 147, or hardly by 6½%. It is obvious then that the increase in deposits and credits by about 14 billion dollars in the course of those 5 years did not cause a proportional rise in prices.

It may be said, that America enjoys a relative stability of prices, based on a relative stabilisation of the currency circulation with a steady increase in bank deposits and credits. In spite, however, of a continuous credit expansion of commercial banks, the credit activity of the Federal Reserve Banks, not only did not increase, but even showed a diminution. The average daily amount of bills and securities in the portfolio of all Federal Reserve Banks amounted:

in	1923	to	1,150,576,000 dollars
	1927	to	1,124,523,000 dollars

The average daily amount of discounted bills alone was:

in	1923	738,144,000 dollars
	1927	442,287,000 dollars

The scale of aggregate Federal Reserve credits diminished by the slight amount of 25 mil. dollars, but the amount of discounted bills decreased markedly in favour of securities. Thus, the great credit expansion of commercial banks was not accompanied by an increase in the credit activity of the Federal Reserve Banks. Under these conditions the gold cover for notes and deposits of the Federal Reserve Banks was bound to be maintained at a high level.

At the end of 1927 the percentage of cover decreased merely to 66.8%. The right of note issue possessed by the Federal Reserve Banks on the basis of their gold reserves has not been so far fully exercised. In this way the money market is protected against the disturbances which may take place within the somewhat artificial structure of the huge expansion of deposits and credits of commercial banks.

The margin which the Federal Reserve Banks possess by reason of only partial exercise of the right of note issue is great. In December 1927 it would have been necessary to increase the issue of notes by 2,870 mil. dollars, or to diminish the gold reserves by 1,148 mil. dollars, in order to lower the reserve ratio to 40%. Professor Sprague before the Commission for monetary reform in India stated that the gold cover in America could be easily reduced to 50%, without causing any disturbances in the internal credit situation and that this would release 800 mil. dollars of gold for export. If part of the gold certificates should be, moreover, replaced by Federal Reserve notes, the amount of gold available for export would increase to 1,300 mil. dollars.

The developments in America have caused some persons to question the rationality of the quantity theory of money since such a great credit expansion has not hindered the stabilisation of prices.

The fact that the issue rights of the Federal Reserve Banks were not fully taken advantage of has also called forth the criticism that America, by hoarding the surplus of her gold, artificially valorises it similarly as England valorises rubber, or Brazil, coffee.

The first of these two points is not difficult to meet, if we examine more closely the structure of

American credit. It is true that during the period of two years [2] from June 30, 1925 to June 30, 1927 the total amount of loans granted by all member banks of the Federal Reserve system, which include the great bulk of all commercial banks, increased from \$20,798,714,000 to \$23,133,123,000, or by 2,334,409,000 dollars. The increase in the loans against securities alone was \$1,438,733,000. Moreover the total amount of loans secured by real estate increased by \$588,071,000. The amount of all other loans, including the total amount of commercial loans increased, on the other hand, only by \$307,-605,000; the latter item in the period from June 30, 1926 to June 30, 1927 showed a diminution by \$230,475,000.

These figures prove that there existed a marked disproportion between the increase in loans against securities and the movement in commercial credits. This disproportion will be still more evident if we examine the figures for the National Banks—which represent about three-fifths of all member banks of the Federal Reserve system—showing the relation of the total amount of paper eligible for re-discount or purchase by the Federal Reserve Banks to the total amount of credits which have no support from those banks. This relation during the last 5 years showed the following changes, the figures representing the principal member banks, not all of them:

[2] *The National City Bank of New York,* Bulletin, January, 1928.

In millions of dollars [3]

June 30	Total Loans and Discounts	Paper Eligible for Rediscount: Amount	Paper Eligible for Rediscount: Per Cent of Loans and Discounts
1923	11,818	3,564	30.1
1924	11,979	3,542	29.5
1925	12,674	3,413	26.9
1926	13,418	3,497	26.0
1927	13,956	3,362	24.1

The centre of gravity was steadily shifted in favour of loans against securities, real estate, etc., not eligible for re-discount at the Federal Reserve Banks. Thus the loans of the National Banks secured by stocks and bonds increased from $2,982,000,000 on June 30, 1923 to $4,037,000,000 on the same date of 1926, rising from 25.2 per cent of the total loans and discounts to 28.9 per cent.[4] This does not mean, however, that the American banks carried on an anti-industrial or anti-commercial policy. Both industry and trade were active and always disposed of such amounts of credits as were required. The market was saturated with commercial loans up to the limits of the demand and for this reason the surplus of free funds was bound to be directed into the channels of the less liquid forms of credit. The demand [5] for commercial credits was

[3] Quoted from *The National City Bank of New York*, Bulletin, January, 1928.

[4] Statistical Abstract of the United States, 1926.

[5] B. M. Anderson, Jr., *The Chase Economic Bulletin*, October, 1927.

in 1927, less than in 1919 in spite of the fact that both production and transport showed an increase of 26%.

The steadiness in the amount of commercial credits concurrently with the much stronger expansion of other forms of credit was bound to be reflected in the quotations of shares and bonds. The indices of the quotations of shares and bonds published by the Federal Reserve Bulletin showed the following changes:

Date	*Industrial Shares*	*Bonds*
November, 1924............	113.4	91.0
" 1925............	150.4	92.4
" 1926............	157.5	95.7
" 1927............	202.1	99.0
February, 1928............	207.6	99.3

The same tendency was showed by the index of value of building contracts—base 1923-1925 = 100—which is so closely connected with the prices of urban real estate:

Date	*With Seasonal Adjustment*
January, 1922...............	70
" 1923...............	85
" 1924...............	101
" 1925...............	101
" 1926...............	146
" 1927...............	123
" 1928...............	137

It is superfluous to quote numerous examples in order to prove that the diverting of bank funds into the channels of non-commercial credits was bound to cause an advance in prices of those values which were financed in this way. The stabilisation of the currency circulation enabled the stabilisation of the prices of the commodities of commerce transactions which are financed by commercial credits. The pressure of the huge credit structure, growing from year to year, was brought to bear not on the commodity market, but on the market of all values other than commodities, which are the class from which the wholesale price index is calculated. It is only natural, therefore, that the wholesale price index showed a tendency towards stability whilst the prices of shares, bonds and real estate simultaneously exhibited large upward jumps.

This interesting phenomenon can also be observed from another point of view. The total amount of credits of all banks during the period 1919-1927 expanded by 46.4%. The simultaneous increase in estimated national income [6] as compared with the status of 1918, was 47%. The uniformity of the rate of increase is most striking. Thus, the volume of credit was built up not by the issue of money by central banks, but by the savings of the community. Great earnings enabled great savings. The pyramid of American credit was growing concurrently with the pyramid of the national income.

Savings represent the unused portion of the pur-

[6] Estimated on the basis of statistics published in the Federal Reserve Bulletins and in *Dollar Diplomacy*.

chasing power of the saver, but they do not form a new and additional purchasing power as does, for example, the issue of paper money. If the total amount of savings effected in the course of a year is not directed into the channels of commercial credits but is used for financing the purchase of shares and bonds, the prices of commodities will not rise, although the increase in bank deposits and bank credits may assume considerable dimensions. The increase of credit in a given country is not the governing factor regulating prices. The question of the origin and use of that credit is likewise of great importance when examining prices. Therefore, the phenomenon of American prices is not a riddle from the point of view of the quantity theory of money.

On the other hand the fact that the Federal Reserve Banks do not make full use of their rights of note issue seems to confirm the objection that America is hoarding gold on a large scale. The American economists admit also that the secondary credit expansion which consists in the issue of notes by the Federal Reserve Banks was not utilised. They deny, on the other hand, that this refraining from secondary expansion is an intentional manipulation on the part of the Federal Reserve Banks. For each large inflow of gold during the period 1920-1927 was used not so much for credit development as for the amortisation of the indebtedness of commercial banks to the Federal Reserve Banks.

Towards the end of 1920 and the beginning of

1921 during a period of great deflation the banks did in effect start paying off their debts on a large scale to the Federal Reserve Banks. A similar phenomenon, though on a smaller scale, occurred repeatedly in the later years. It can be said that in America in connection with the inflow of gold the readiness of the money market to reduce the indebtedness to the Federal Reserve Banks always preceded the stabilisation policy of the Federal Reserve Banks.

This manner of defence of the American attitude —we find a classic example of it in Burgess' excellent book published with a preface by Benjamin Strong, Governor of the Federal Reserve Bank of New York —is confirmed by the fact that the American market is saturated with commercial credit. Should America suffer from a shortage of commercial loans, the objection of an intentional hoarding of gold would be easier of proof. In reality, the American market in spite of the fixed position of the reserve credits, does not experience any shortage of commercial credits. As a result the discount policy of the Federal Reserve Banks is not so influential as the so-called open market operations.

It is a quite natural phenomenon.

With the market saturated with commercial credits, the change of the discount rate of the Federal Reserve Banks cannot exercise on it a prompt and effective influence. The influence of the discount policy depends more and more on the simultaneous contraction or expansion of the open market operations, i.e., on the dimensions of the purchase or sale of securities by the Federal Reserve Banks. In consequence of the fact that the centre of gravity of the credit expansion had shifted from the market of commercial paper to the market of securities, the rôle of the discount rate was bound to diminish and the rôle of the open market operations was bound to increase in the same proportion.

The American defence is confirmed further by the fact that the outflow of gold, whenever it takes place as, for example, in 1927, does not result from the commercial situation but from credit activity on behalf of other countries. Gold does not flow out in consequence of a difference in prices or an excess of imports in the foreign trade balance, but simply as the proceeds of dollar loans contracted in America are changed into gold.

The total amount of loans raised in America by Europe and the rest of the world has reached the sum of 14½ billion dollars, this excluding war debts and relief credits. Only a small fraction of these sums was paid in gold or changed into gold and earmarked for account of foreign borrowers, but a considerable portion of these loans was deposited with American banks in the form of short-term deposits. The total net amount of these deposits is estimated by American authorities at over 1 billion dollars. If the sums invested by foreign capitalists in American shares and bonds are added the total will be considerably greater than the surplus of gold reserves accumulated during and after the war.[7] The sums thus deposited can be withdrawn in gold at any time and this fact constitutes an additional argument justifying America's hoarding policy. America wishes to be prepared for such an eventuality and does not want to be confronted with such a situation as in London. There the short-term foreign deposits constitute an additional strain on the money market, as the Bank of England is not in possession of a sufficient gold cover for them; it will not be easy to create an adequate cover unless the Bank abandons the present rigid system of note issue and adopts the more elastic system which requires only a certain reserve percentage against notes outstanding.

The accumulation of short-term foreign deposits on the American market will be unavoidable as long as America plays the dominant rôle of the creditor of the world, and as the gold exchange standard is applied simultaneously by the majority of central banks with the exception of a few gold centres. The longer the gold exchange standard is applied and the more widespread its application, the greater will be the accumulation of such deposits. Under expansion of that standard the vicious circle of credit exchange will constantly be aggravated, since the increase in long-term loans granted by America will be counter-

[7] H. A. E. Chandler in *Commerce Monthly*, National Bank of Commerce, November, 1927, p. 8.

balanced by the increase in short-term loans granted to America.

While we refrain from expressing any opinions as to the future, we must admit that the accumulation of foreign deposits resulting from the existence of the gold exchange standard puts American gold into a different position than would be the case with the old pre-war gold standard and with a normal international trade in gold. The portion of gold corresponding to the short-term deposits of foreign central banks is to some extent a "deposit on the American market." [8] It is hardly possible to demand that the deposited gold should be used as a basis for note issue for credit purposes. The cautious policy of America benefits Europe also, as it offers the guarantee that in the event of the gold exchange standard being gradually liquidated a gradual and considerable outflow of gold from America will be possible.

The American authorities gauge aright the situation and reckon with the possibility of an outflow of gold for the use of other nations as soon as the latter reach such a degree of stabilisation that they will be in need of gold. "When gold exports begin the Reserve mechanism will again be useful, for member banks may secure the gold for export by borrowing at the Reserve Banks, or the Reserve Banks may assume the burden by increasing their holdings of

[8] H. A. E. Chandler in *Commerce Monthly,* National Bank of Commerce, November, 1927, p. 9.

securities." [9] It is believed that in case the outflow of gold assumes excessive dimensions, the situation can be mastered by raising the discount rate, or by restricting the flotation of foreign loans, or by both measures applied at the same time.

It is true that these optimistic views are not shared by all. Sceptics [10] are of the opinion that in case of a greater outflow of gold the reserves of member banks, already too small in proportion to the present credit structure—$19 of credit per $1 of reserves—will so diminish as to compel the banks to resort to mass sales of bonds and shares. This would of course bring about a fall in prices of securities as well as all other results connected with it. America will thus, it is argued, pay the costs of the European experiment with the gold exchange standard.

The sceptics are right to a certain extent. As we have already pointed out, the total amount of paper eligible for re-discount or purchase by the Federal Reserve Banks has lagged considerably behind the increase in the less liquid forms of credit. In order to increase their borrowings from the Federal Reserve Banks, the member banks would be obliged to sell either commercial bills or government securities. The portfolios of these banks, however, are bulging not so much with commercial bills and government securities, as with shares and bonds which are not suitable for sale to the Federal Reserve Banks, and

[9] Burgess, *l.c.* p. 272.
[10] H. Parker Willis, *The Banker*, London, February, 1928.

with bills secured by them. The same applies to investments in and loans secured by real estate. Thus, in case of a rapid outflow of gold the member banks would be obliged to liquidate on a large scale those assets which do not fall under the statutory requirements of the Federal Reserve Banks.

While certain assets would have to be liquidated, liabilities of the other kind would have to be created.

Under these conditions it is easy to say that in case of the outflow of gold the member banks would be able to increase their borrowings from the Federal Reserve Banks; it would in practice be more difficult to carry it out smoothly. While the member banks themselves would have to liquidate certain operations, others would have to be conducted by the Federal Reserve Banks. The first would have a different effect on the money market than the second. Suppose even that from the statistical point of view the liquidation of the first would be offset by the increase in the second. This does not mean altogether that these two operations would counterbalance each other also from the economic point of view. Unquestionably it was easier to regulate gold imports than it would be to regulate gold exports.

Theoretically America's capacity to give back her surplus of gold owing to the policy of the Federal Reserve Banks, is a very considerable one. The lowering of the cover for notes to 50% and the retirement of gold certificates by substituting Federal

Reserve notes according to the estimates of Prof. Sprague [11] can release 1,300 mil. dollars of gold for export. Actually this problem may prove to be more difficult, particularly if a sudden liquidation of the gold exchange standard should cause immediate and considerable gold exports. The public opinion in America, especially in the Central and Western States, is not sufficiently prepared for such an eventuality. Even in the Eastern States a general and rapid liquidation of those bank assets which are not eligible for re-discount under the statutory requirements of the Federal Reserve Banks would inevitably cause a crisis on the Stock Exchange and would provoke public opinion against further gold exports or against further exports of capital. Any measures applied for the purpose of stopping either the one or the other would be only a temporary remedy and in the long run would bring America more harm than good.

The raising of the discount rate would cut off the gold exports but at the same time would endanger the stability of the currency in countries outside America and consequently would render the exportation of American goods more difficult. The surplus of available capital can be shut up within the boundaries of a given country only at the expense of its rate of return. In both cases America would experience more harm than good. The

[11] *The National City Bank of New York,* Bulletin, October, 1926, p. 192.

Gordian knot which the post-war crisis created between Europe and America cannot be cut from one side. Even America in spite of her financial power cannot assume the rôle of Alexander the Great. This problem may be solved only by a genuine international collaboration and by instilling into the minds of the Americans the belief that the stabilisation of European currencies cannot be to America a question devoid of interest.

The consolidation of currency stabilisation in Europe will require great amounts of gold. Whether Europe applies the method of centralisation or decentralisation of gold, in either case a greater inflow of gold will be necessary. In view of the falling off in the output of the mines, the American reserves become of a great importance. Strictly speaking America is the only free gold market, for in London, although the legal embargo has been lifted, the moral embargo persists. To hope, however, for a return of gold from America to Europe in a greater amount than one billion dollars would be dangerous. All statistics of gold are, moreover, deceptive, as gold movements are not a mechanical action but result from the international exchange of commodities, services and capital. It is possible that in practice it would be difficult to get even one billion dollars of gold, if the disturbances of the domestic credit situation should assume more considerable dimensions than appears likely to-day. Therefore, both on account of the falling off in the production of gold and on account of the lack of sufficiently accurate knowledge of the amount of the gold reserves which can return from America to Europe, economy in the employment of gold and the co-operation of central banks in this direction continues to be a question of primary importance.

At present gold purchased in America by European central banks, which cannot freely export gold, is immobilised in the vaults of those banks. Gold is purchased, but it is not sold. The movements of gold are onesided. This applies both to reserves of old gold, chiefly brought from America and to gold derived from new production. If the free trade in gold is not restored at an early date we shall witness after a few years a new situation: America will give back her surplus of gold in the interest of European stabilisation and in spite of that the shortage of gold will not be mitigated but will be rendered more acute. For the American gold will disappear in the vaults of central banks which apply the gold exchange standard, while they are deprived of the right of exporting gold.

What will be the situation if the inflow of gold from new production steadily diminishes, if America gives back her surplus of gold, if the moral embargo on gold exports still prevails in London, and if other markets, with a few exceptions are still deprived, as heretofore, of the right of exporting gold. This picture probably is too dark and paradoxical, but the present lack of co-ordination of the gold bullion standard with the gold exchange standard and the general belief that a return to free trade in gold is impossible, do not as yet encourage optimism.

America can return, it is true, considerable though limited quantities of gold. If, however, the so-called hoarding of gold in America is transformed into a real hoarding of gold in Europe, the repartition of the world stocks of gold will show an improvement only in the fiction of statistics.

IV. THE "DOLLAR STANDARD"

FORESTALLING all other countries in the return to payments in gold, even before the great deflation of the period 1920-1921 America secured a privileged position for the dollar. The dollar became thus the basis for the stabilisation of other currencies, particularly those of Europe. "The market [1] for gold and the market for dollars became one and the same thing." This new position of the dollar has been maintained owing to the policy of the Federal Reserve Banks, which after the great deflation and the rise in the value of the dollar has successfully endeavoured to prevent large fluctuations of that value. Cassel's idea [2] expressed in his Memorandum of 1921, that it would be "desirable that one country should take the lead by fixing the internal value of its money and it seems natural that this country should be the United States," has thus been realised.

The internal purchasing power of the dollar was fixed by the stabilisation of American prices. As a result the stabilisation of other currencies was

[1] Hawtrey, *The Gold Standard in Theory and Practice*, 1927, p. 92.

[2] G. Cassel, *The World's Monetary Problems*, 1921, p. 80.

bound to gravitate towards the level of the purchasing power of the dollar.

If I am not mistaken, Cassel was the first who defined this situation as the return of the world not to the pre-war gold standard, objectively regulated by the production of gold, but to the "dollar standard," [3] whose value is the result of the manipulation of the Federal Reserve Banks. This subject was taken up and very skilfully expanded by McKenna. His leading ideas [4] are the following:

To-day just as before the War "the price of gold in America is fixed," i.e., one ounce of gold can always be exchanged for a strictly determined number of dollars. Should the level of prices in America fluctuate in accordance with the outflow or inflow of gold, the value of the dollar would depend, as was formerly the case, on the value of gold. The prices in America, however, do not react at present to the movements of gold, but their level "is controlled by the policy of the reserve banks in expanding or contracting credit." In view of this fact "it is not the value of gold in America which determines the value of the dollar, but the value of the dollar which determines the value of gold."

This is achieved by the machinery of prices. Should the prices outside America rise in conse-

[3] Speech delivered at the Congress of German Bankers in Dresden, 1924.

[4] Midland Bank Limited, *Monthly Review*, January-February, 1928.

quence of an abundance of gold, America would be able to import this surplus of gold without any difficulties. Should the prices outside America decline on account of a shortage of gold, America would be able to cover easily this deficit. The movements of gold in one or the other direction would last "until the price levels inside and outside America were brought once more into equilibrium." The purchasing power of the dollar is "the real determinant of movements in the general world level of prices," and gold is only "the nominal basis of most currencies," so that "the world is in a very real sense on a dollar standard."

Before the World War, according to McKenna, the central banks "adopted a purely passive attitude with regard to the control of credit, allowing the movement of gold into or out of a country to regulate the internal supply of money." To-day the movements of gold in America are neutralised by the operations of the Federal Reserve Banks, especially the so-called open market operations. America is all the more able to do this, because she possesses large gold reserves; because she is such a rich country that she can afford to absorb a considerable amount of gold without using it for credit expansion; and finally because "her creditor position constitutes a permanent magnet for gold." Therefore, America would be deprived of her ability to control the level of world prices only in the event of her granting over a rather long period of time foreign loans "beyond her true capacity to lend." She is not threatened, however, with this danger for, as we know, the aggregate amount of all loans granted to the world by America up to the end of 1927 did not exceed one-sixth of her annual national income.

All this reasoning, which is very skilful and attractive, has one weak point: it idealises the pre-war conditions. In reality the working of the pre-war gold standard did not differ widely from that of the present dollar standard. If nowadays the level of American prices constitutes a centre of gravity for other price levels, before the war the level of English prices played the part of such a centre. McKenna himself admits that in those times: "the British price level was the medium through which gold operated on the price levels of all other countries." Someone else in England [5] has made the just remark that in this respect America holds "the position that was formerly held by Great Britain." It can be said, therefore, with equal truth that before the World War we had a pound sterling standard, as one kilogram of gold was invariably exchanged for the same number of pounds sterling, and owing to this fact the purchasing power of that kilogram of gold was determined by the quantity of commodities which could be purchased by the resulting pounds, i.e., it depended on the English level of prices.

The whole difference consists in that, in consequence of the World War, England's position was

[5] *The Statist*, February 11, 1928.

weakened in favour of America's, as is shown by the following facts: 1. England as a world creditor has ceased to hold the first place and cannot be such a strong magnet for gold as America; 2. the financing of world trade has ceased to be the practical monopoly of London, and the American bank acceptances, especially in view of the discount facilities at the Federal Reserve Banks, are more and more successfully competing with sterling acceptances; 3. the largest gold reserves are concentrated in America which fact greatly facilitates the stabilisation policy of the Federal Reserve Banks, while the stocks of gold in London are hardly sufficient to carry through the amalgamation of bank notes and currency notes and are not sufficient to cover the foreign exchange deposits held in London by numerous central banks which apply the gold exchange standard.

The inflow of gold to America during and immediately after the deflation period was very strong as compared with the pre-war movements of gold. In the period between May, 1920, and January, 1922, the American reserves increased by 900 million dollars. The inflowing wave was so large that the necessity of controlling credit became evident to all. For should the inflow of gold be made use of for secondary expansion, America would again fall into the danger of gold inflation. We have seen likewise that the conscious policy of the Federal Reserve Banks played at first a less important rôle than the policy of commercial banks, which owing to the inflow of gold preferred to pay off their debts to the Federal Reserve Banks rather than to use the new funds for the granting of new loans. They did this, moreover, under the pressure of the fact that the market was saturated with commercial loans of which it did not stand in further need. Commercial loans cannot be expanded at will if clients wishing to make use of them are lacking.

It was not alone the suddenness and the magnitude of the inflow of gold which compelled the Federal Reserve Banks to resort to manipulation which made the volume of currency circulation and credit independent of the movements of gold. The adoption of this policy was due likewise to another factor, which exercised its influence also in Europe. After the World War the economic system underwent such fundamental changes that the pre-war passivity of the central banks, if such existed, was bound to become an anachronism.

Before the War the gold reserves of the central bank constituted merely a portion of the monetary stocks of gold in a given country. Large amounts of gold coins circulated on the market and played the part of the front line of defence in case of a deficit in the balance of foreign payments. There was no concentration of monetary gold and therefore the stocks of gold of the central bank really played the part of a reserve and of a last reserve in case of emergency. This was one of the secondary, yet important, advantages of the pre-war system of the gold standard, as was rightly noted by Vissering in the annual report of the Bank of Holland for the year 1926. Thus, when in the past a deficit in the balance of payments occurred the gold coins circulating on the market were the first to flow out to foreign markets, and owing to this fact the outflow of gold from the central banks, if such was finally brought about, could be regarded as a signal of alarm giving warning that the deficit was of considerable magnitude, or, if an inflow took place, that the favourable balance was too large.

With such a system the central banks were not at once attacked and as long as only the private reserves of gold coins passed from one country to another the banks could remain passive. The situation changed when the reserves of the central banks began to be depleted. The discount rate was then raised or reduced according to the rate of the inflow or outflow of gold.

At present the situation is different. With the lack of circulation of coins the stocks of gold of the central bank are both the front line and the reserve. The central bank has become a more sensitive instrument and the discount policy has become a more complicated problem. To-day there are no hidden reserves such as the pre-war circulation of gold coins. The concentration of gold becomes constantly more and more striking. In 1927 McKenna considered it as an achievement that the Midland Bank was still able to withdraw from circulation 830,000 pounds sterling in gold coins and sell them to the Bank of England.

Under the pressure of the concentration of gold the discount policy of the central banks was bound to become more active and the rôle of the discount rate was strengthened by the so-called open market operations. The central banks are and ought to be to-day less passive than before the war, but it does not mean at all that before the war they were "purely passive." Moreover the change in attitude is not an exclusively American phenomenon. The Bank of England also is carrying on a more complicated discount policy and is applying on a wider scale the open market operations. In 1925 after the resumption of gold payments in the period from April 29 to August 5 the Bank of England registered an inflow of gold to the amount of 9 millions of pounds sterling. During the same period the Bank sold securities to the amount of 11 million pounds. In the period August 5 to November 18 the outflow of gold from the Bank amounted to 17 million pounds. The simultaneous purchases of securities by the Bank of England totalled 12 millions. In this way the outflows and inflows of gold were neutralised and the credit structure in England was relatively stabilised. It is an example of a manipulation as classic as the American one.

Only the mint can be passive. A central bank never was nor can be passive, particularly to-day when we have not only the concentration of gold but also such a large paper credit-superstructure that the total world monetary stocks of gold hardly constitute 9 per cent of the combined amount of bank notes in circulation and of bank deposits. The efficiency of the printing-presses is competing at present with the output of gold mines. The gold coin becomes a numismatic relic and the economic operations of the world are based more and more on the circulation of rights to receive gold such as bank notes and cheques. Under these conditions some one rightly remarked in the Bulletin of Midland Bank [6] that the gold standard even in its pre-war form never was, nor is it now an "automatic system," for the gold movements are "rather a compass than a motor," i.e., they give only "a warning signal," and they compel the banks "to perform their duties" which consist in the control over currency circulation and credit.

Other misunderstandings similar to those above mentioned originate in the commonly accepted belief that with a gold standard the price of the yellow metal is stable while the prices of all other goods and services are subject to fluctuations. The cost of a pair of shoes varies while for one kilogram of gold, if we have a gold standard, the central bank invariably pays the same number of dollars, or if the Bank sells one kilogram of gold it always requires the same number of dollars. In both cases the commodity is exchanged for dollars. In the first case the

[6] June-July, 1927.

amount of dollars paid varies whilst in the second it does not change. Does this mean that in the first case the price of the commodity is unstable while in the second case it is stable?

Apparently it is so, but this is only an illusion. For price is the exchange value of goods and services expressed in monetary units, e.g., in dollars. As long as the exchange value of anything is not expressed in terms of money we cannot speak of price. What then is a dollar? It is a fixed fraction of one kilogram of gold. If a producer of gold sells to the Bank one kilogram of gold and the dollar is a strictly determined fraction of one kilogram of gold, the bank pays for one kilogram of gold in the form of bars also one kilogram of gold but in the form of dollars, which are special weight units of gold. The alleged price of gold in dollars is only a form of exchange of gold bullion for monetary gold, and it is immaterial whether the payment to the producer is effected in gold coins or in bank notes or by means of a cheque drawn on a bank.

In a country whose currency is on a gold basis payments are effected as a rule in certificates of the right to receive gold and not in coins. This creates the illusion that the price of gold is stable. There was a period, however, when gold as a means of payment was used simply in the form of units of weight without minting coins and without substituting notes or cheques for gold. Banks are known in history which up to modern times conducted the accounts of their clients not in monetary units, but in gold according to its weight. Can we speak of a stable price of gold expressed in terms of gold with such a system of payments by means of weight units of gold? This would be an obvious tautology.

To-day we are confronted with the same situation.

For one kilogram of gold we receive different amounts of dollars, pounds, florins, etc., but practically we always receive the same amount of gold after deducting, or after adding, the costs of coinage, transport, insurance, packing, etc. If in London the Bank of England pays a different amount for one kilogram of gold than the private market this difference, usually a slight one, does not apply to the gold itself, but to those commercial services connected with the transport of gold which are necessary in order to deliver gold to the market in the condition required by commercial customs. The prices paid by a central bank and by a free market for commercial services connected with the transaction in gold are all that can differ. The nature of the transaction itself does not change and one form of gold is exchanged for another on the basis of a weight parity after deducting or adding the commercial costs.

Hence it results that the mint parities of currencies are parities of weight and not of value. Hence it results, further, that apart from the mint parity there exists the more important question of the parity of the purchasing powers of various currencies. Hence it results, finally, that the profits of the production of gold do not depend on the quantity of gold contained in the dollar or in the pound sterling, but depend on the commodity purchasing power of the dollar and the pound under the existing market conditions.

As long as gold plays the part of money, i.e., as long as the currency is on a gold basis, we have only the exchange value of gold in relation to other goods and services, but we have no price of gold. The alleged stable price of gold is a price of gold expressed in terms of gold—an obvious tautology. We can speak of the price of gold only when gold does not play the part of money.

When gold is itself money it can have only an exchange value but has no price. With a silver or paper currency gold has not only an exchange value, but also a price. This price, however, like all prices is unstable, varying in dependence on the economic situation.

When it is money gold has no price. As soon as gold ceases to be money it regains a price, but this is not then a stable one.

If we abandon the illusion that the price of gold is stable we better perceive: 1. that the very nature of economic life consists in an exchange of commodities and services and that the gold standard, like any other standard, is only a technical subsidiary means; 2. that money always is a local, a national thing.

As long as there is no universal, international currency and no one exchange market, there is no universal, international value of gold. We have only local markets on which gold is "represented" [7] by national currencies. If on the market of a given country an excessive amount of coins or certificates of right to receive gold is accumulated, the purchasing power of the local currency in relation to commodities and services will diminish. Simultaneously in some other country the reverse relation may take place. As soon as the differences in the purchasing power of currencies assume considerable dimensions, gold flows into that country where its purchasing power is greater, and flows out of that country where its purchasing power in relation to commodities and services is less. Passing from one country to another gold *levels up* the differences in prices, that is the differences between the local exchange values of gold on the various markets.

In consequence of this adjustment the deviations in price levels are gradually brought to a minimum, i.e., to *natural limits*, resulting from local conditions of production, climate, soil, length of transport, rates of the Customs Tariff, amount of capital in the country, technical conditions, etc. In this way *an equilibrium is attained which is vividly described as the level of world prices.* This equilibrium can, however, be secured only on condition that the *free circulation* of gold from one market to another is maintained.

[7] Cassel's appropriate expression.

The definition of a monetary unit as a fraction of one kilogram of gold unites the various currencies only theoretically, by enabling a comparison of their weight in gold. Actually the interdependence of currencies is regulated by the movements of gold from one market to another. Not the exchange parity, falsely called the stable price of gold, constitutes the chief advantage of the gold standard, but the free circulation of gold in international commerce. Thus, the pre-war system of the gold standard, based on free trade in gold, served successfully to abolish differences in the levels of prices and enabled the attainment of their natural equilibrium.

A question of great importance therefore arises: can the present system, deprived of a co-ordination of the gold exchange standard with the gold bullion standard and not based on the principle of free trade in gold, replace the pre-war gold standard as regards this levelling activity?

Here lies the crux of the whole problem.

Our generation will not live to see the moment when a single, international currency for the whole world will replace the present mosaic of local, national currencies. Most likely the coming generation will not witness it either. As long as there exists a great number of national currencies with mutual interdependence and as long as the volume of currency circulation depends not only on local factors but also on external factors, the central banks are not and cannot be "purely passive" if they understand well their duties and perform them satisfactorily. We must also reconcile ourselves with the fact that, on account of the lack of a uniform purchasing power of gold throughout the whole world, that currency which is locally the strongest is at the same time the strongest in its influence on other currencies. For the strongest currency must necessarily be adopted as a centre toward which other currencies gravitate by reason of the wealth of the country which creates that strongest currency as well as on account of its commercial rôle and its ability to grant credits to the weaker countries.

The gold standard, in spite of its advantages, was never able to free itself from the influence of the monetary system of the financially strongest country, which imparted to it a special character. Before the War the gold standard bore the mark of the pound sterling standard. Since the World War it has with reason been called the dollar standard. For the centre of gravity of world economics has been shifted from the banks of the Thames to the banks of the Hudson. America represents to-day 28 per cent of the world production of wheat, 58 per cent of cotton, 43 per cent of coal, 53 per cent of steel, 72 per cent of crude oil and 53 per cent of copper. Her consumption of rubber amounts to 71 per cent of the world production and she spends on public education more than all the rest of the world. With the same working hours in Europe and America the earnings of an American workman [8] are equal to those of a German workman plus as much again for comfort and savings.

During the ten years since the War America "has lent to the world, and, more particularly to Europe, as much as Great Britain lent in a century." [9] The American trade constitutes more than 14 per cent of world trade. These figures are amply sufficient to explain why the pre-war pound sterling standard has been replaced by the dollar standard. It should be stressed also that America is aware of this new rôle and responsibility and endeavours to strengthen it. The passing of the MacFadden Bill makes possible a better concentration of bank funds and an easier expansion of branch banking. By facilitating the discounting of bank acceptances by the Federal Reserve Banks, America is endeavouring to increase her influence on the financing of world trade. By permitting the quotations of shares of European undertakings on the New York Exchange she aims at increasing her rôle abroad in industrial investments.

The predominance of America is manifested above all in her rôle as a source of capital. To be a creditor means to be a magnet for gold. America will be such a magnet for many years to come. Before the War Europe played this rôle, for throughout many decades she increased every year the amount of

[8] Prof. Dr. Julius Hirsch, *Neue Freie Presse*, 1925, April, 4.

[9] George Paish, *The Road to Prosperity*, p. 20.

loans extended to other countries. In that period America's indebtedness increased every year while Europe became more and more important as a creditor. We witness now a reverse tendency. It is, however, a normal phenomenon in world economics that the movement of capital should be over long periods continuously in one direction. Lansburgh goes a little too far when he states that an economic law underlies these cyclical movements of capital. Nevertheless the cyclical character, i.e. the prolonged duration of the creditor's rôle in international relations, is a proven fact.

Such a one-sided cycle may be brought to an end only by great historical disturbances. The World War, the great political upheaval on the shores of the Atlantic, interrupted the European cycle to the advantage of America. It is possible that some disturbances on the shores of the Pacific will interrupt the American cycle again in favour of Europe. This is not, however, inevitable, as Europe is not a new territory and may be saturated with the inflow of capital at an earlier date than was the case during the pre-war cycle when the outflow of capital from Europe was directed chiefly to new territories.

The outlook for the future economic progress of Europe would be much more favourable but for certain particularly difficult problems, such as tariff barriers, emigration, war reparations and the repayment of war debts which were incurred not for productive but for destructive purposes. While we realise that Europe is facing now great difficulties we deem it premature to fear that we are approaching a catastrophe.[10]

One who has been deprived of the rôle of a creditor cannot promptly regain his former position. Such is the logic of the international exchange of capital. The cyclical character, however, of such exchange protects us against catastrophe, for the longer the one-sided movement of capital lasts, the stronger will be the community of interests of the creditor and of the debtor. Co-operation becomes then of primary importance and it is co-operation that finally wins. And although the present dollar standard will not soon be dethroned, this does not mean at all that Europe must become a colony for American capital and be degraded to the rôle of ancient Greece whose refined civilisation crowned the world power of Rome.

Not the dollar standard, brought into being by the course of events and the young creative power of the American nation, is the most vital contemporary problem. Neither is the return to the pound sterling standard. The gold standard must always have its centre of gravity in that country which is financially the strongest. The most important contemporary problem, therefore, is the machinery of this gravitation towards the dollar standard.

Can the movement of gold, which before the World War smoothed out all differences in the price

[10] George Paish, *The Road to Prosperity.*

levels and brought about their mutual equilibrium within natural limits, be successfully replaced in this rôle by the present movement of foreign exchange?

The essential point is that the mechanism of the present dollar standard as regards the adjustment of prices should be as effective as the mechanism of the pre-war pound sterling standard.

V. THE GOLD EXCHANGE STANDARD

Before any apprehensions as to the future of the production of gold appeared, the introduction of the gold exchange standard became a necessity on account of a general suspension of payments in gold and the placing of embargoes on gold exports, caused by the World War and its consequences. If the central banks had not applied the gold exchange standard in that period, it would have been impossible to carry on international trade. For no business man who had not been given the possibility of selling foreign exchange to his central bank would have consented to accept it in payment for exported goods.

The central banks, being deprived of an inflow of foreign gold and compelled to start foreign exchange operations, had also to strive to withdraw gold coins from circulation. Before the World War the circulation of gold coins constituted a first reserve in case of a deficit in the balance of foreign payments. After the War the foreign exchange reserves and the circulation of foreign bank notes began to play the part of the first reserve of the overwhelming majority of central banks. Foreign exchange thus replaced gold coins. Under these conditions the contraction of the circulation of gold coins in Europe and the increase in the foreign exchange reserves of central banks together with the increased circulation of foreign bank notes, chiefly dollars, were bound to show a tendency towards a mutual adjustment.

During the period 1913-1926 the circulation of gold coins in Europe shrank from 9.9 billion marks [1] to 236 millions, i.e., decreased by 9.7 billions. At the end of 1926 the foreign exchange reserves of central banks in Europe plus the increased circulation of dollar notes amounted at least to 2 billion dollars or 8½ billion marks. These figures almost counterbalance each other.

Arising out of war necessities the gold exchange standard was made the keystone of a policy of economising gold from the time of the Genoa Conference. According to its recommendations gold should be concentrated in a small number of centres and the remaining central banks might limit themselves to foreign exchange reserves held on deposit accounts in gold centres. In this way we should avoid an anarchic demand for gold and its value would be protected against a continuous upward tendency. The demand for gold would be thus regulated and its value would become stabilised.

It is a very attractive goal and its attainment in the above mentioned way seemed at the beginning very probable. Nobody had any doubts in this respect up to the year 1927, when certain difficulties

[1] *Wirtschaft u. Statistik,* 1927, No. 15.

arose in connection with the accumulation of foreign exchange by the Bank of France.

One of the newspapers[2] called the huge foreign exchange reserves accumulated by the Bank of France "the principal disturbing factor on the horizon of international monetary stability." The same paper on another occasion made the remark that the great accounts in London controlled by the European central banks represent "a substantial risk, as heavy withdrawals may take place for reasons of policy independently of general tendencies." The rate of interest is unable to give an adequate guarantee for "the yield plays a secondary part in the movement of funds" of central banks. Can such difficulties be removed by the permanent maintenance of the present gold exchange standard system? Was this the exact meaning of the Genoa recommendations?

There are two versions. According to the first the Genoa Conference recommended the application of an unlimited gold exchange standard for an indefinite future, as in its opinion this system might be as effective as the gold standard. According to the other version the system of the gold exchange standard adopted in Genoa was meant as a transitory system leading to a gradual return to the gold standard.

The latter version is confirmed by the fact that in the Statutes of the new central banks in Austria, Germany and Hungary, worked out after the Genoa

[2] *The Financial News,* January 9, and February 29, 1928.

Conference in conjunction with the experts of the League of Nations and the leading central banks, a clause was inserted providing for the convertibility of notes into gold. In addition a clause was also inserted in the Statutes of the Reichsbank limiting the amount of foreign exchange which may be included in the minimum reserves and requiring that at least three-fourths of such reserves should be in gold and only one-fourth in foreign exchange. The Statutes of Belgium and Poland, written at a later period, were based on the same principles. A pure unlimited gold exchange standard was introduced only in Danzig which is a small and weak country.

This proves that the first version which speaks of a recommendation to apply the gold exchange standard indefinitely and, without any limitation of the issue of notes for purchases of foreign exchange, is not true. But whether the first or the second version is accurate has no bearing on the subject, as the appraisal of the rôle and the future of the gold exchange standard must depend essentially on the experience already gained and on its more detailed analysis.

Are the movements of gold and the movements of foreign exchange equal as regards their effects? The opinion prevails that this is not the case because the fluctuations of gold have reciprocal consequences whereas the results of the movements of foreign exchange are onesided. What does this signify?

If there is an inflow of gold and the central bank purchases it the currency circulation increases in the country and simultaneously shrinks abroad. If there is an outflow of gold and the central bank sells it the currency circulation shrinks in the country and simultaneously expands abroad. The gold movements have thus two reciprocal effects on currency circulation for at the same time the credit structure increases in one country and decreases in some other country. This may be observed not only from the point of view of separate transactions but also from that of aggregate annual transactions. With an inflow of gold caused by a favourable trade balance the credit structure increases, whilst it shrinks when the balance is an adverse one. Simultaneously the reverse holds good abroad, i.e., in countries from which gold flows out or to which it flows in.

Otherwise, however, is the movement of foreign exchange. If a central bank purchases foreign exchange, the currency circulation, i.e., the total amount of bank notes and bank deposits, increases but it does not shrink simultaneously abroad. If a central bank sells foreign exchange the currency circulation shrinks in the country but it does not simultaneously expand abroad. The movements of foreign exchange have not reciprocal but onesided effects on the credit structure. This may be observed both from the point of view of separate transactions and from the point of view of aggregate annual returns. With a favourable balance of payments the credit structure of the country increases whereas it does not shrink abroad. With an adverse balance it shrinks in the country but does not expand abroad.

The movements of foreign exchange become similar to the movements of gold when operations are transacted not between two markets but between three markets at the same time. If an English merchant receives goods from a German merchant and pays for them by sterling cheque drawn on one of the London banks, the credit structure in Germany grows but it does not shrink in England. If, however, an English merchant makes this payment by cheque in dollars drawn on one of the American banks, the transaction is then triangular and the credit structure increases in Germany and simultaneously shrinks in England. The movement of foreign exchange seems then to have two reciprocal effects like those of the movement of gold. The likeness is, however, only partial and not complete. With the movements of gold the inflow to Germany is absolutely counterbalanced by the outflow from England. With the triangular transaction, although the inflow of foreign exchange to Germany is counterbalanced by a contraction of the credit structure in England, the same amount of dollars which is transferred by way of England to Germany remains in the American credit structure.

The same amount of dollars, although it will be transferred from the account of the English merchant in New York to the account of the German merchant, can become again a part of the English credit structure by means of credit granted by the American banks to an English merchant, or by means of such a credit granted to a German merchant become again a component of the credit structure in Germany. We find a classic example of these transactions in the great purchases of foreign exchange effected by the Bank of France when the purchased pounds sterling returned to the French market in the form of credit and were repurchased by the Bank of France. Therefore, although the German merchant will sell a cheque to the Reichsbank, the same amount will remain somewhere abroad either on the English or on the American or on some other market.

In the movement of foreign exchange we witness only a transfer of the same amount from one bank account to another. The transfer from one market to another is but a similar wandering of the same amount from one account to another. It is unavoidable that the same amount should be a component of the credit structure in two countries simultaneously, and this constitutes the substantial difference between the movements of foreign exchange and the movements of gold.

Foreign exchange is a right to receive gold but it is not gold. When a central bank purchases foreign exchange it does not finish the transaction but only half effects it, i.e., it issues its notes for this purchase but it has still to convert the purchased foreign exchange into gold in order that the purchase of foreign exchange may be equivalent to the purchase of gold.

The gold exchange standard consists in that the central bank does not convert purchased foreign exchange into gold but holds it amongst its assets as cover for the issue of notes on an equality with gold.

If it buys for example a thousand dollar cheque on New York it collects it and deposits the proceeds with one of the banks, or it converts the dollars by means of arbitrage into some other gold currency and deposits the amount so obtained with some bank outside America, e.g., in London. The bank which applies the gold exchange standard instead of importing gold opens accounts abroad in currencies convertible into gold. The conversion of foreign exchange into gold is thus adjourned. The central bank receives in exchange interest on its foreign accounts. This is justified because the central bank does not withdraw this gold from the foreign market, i.e., this amount of gold continues to serve abroad as a basis for the credit structure.

In this way the central bank grants a credit to the foreign market. A certain amount of gold, e.g., the above mentioned thousand dollars, may perform its functions simultaneously in two countries. In the country which purchases this cheque for thousand dollars the currency circulation increases in the same proportion; simultaneously the same amount of thousand dollars remains in the credit structure abroad. The same amount of thousand dollars which does not cease to perform its purchasing function on one market, can at the same time perform this function on some other market. Whether the purchased foreign exchange originates in commercial transactions or in long-term or short-term credits, this phenomenon is the same. Instead of a movement of gold from one country to another, or from one bank to another, we have a transfer of thousand dollars from one bookkeeping item to another without any actual outflow and without any contraction of the currency circulation. Therefore, the longer the gold exchange standard is applied and the wider its application, the stronger will be the tendency of foreign exchange reserves to increase as economic progress takes place.

The steadily increasing *accumulation of foreign exchange reserves is the most essential feature of the gold exchange standard.* The accumulation of foreign exchange reserves, however, is nothing other than an accumulation of short-term credits granted to foreign countries by the banks which apply this system. The balance of foreign payments thus is not adjusted by gold but by short-term credits granted to foreign countries by a bank which purchases foreign exchange. Instead of a fluctuation of gold we have an ebb and flow of short-term credit.

Thus on the international market a peculiar mass of capital has appeared which was not known before the War and which is in possession of the banks applying the gold exchange standard, and this mass increases from year to year. He who desires to strengthen the gold exchange standard and make it as widespread as possible must realise clearly that he wishes this new mass of mobile capital to be increased more and more and that the settling of international balances should be effected more and more by means of short-term credit and less and less by gold.

International exchange is in reality an exchange of commodities and services. Gold is a technical means facilitating this exchange but it changes in no respect its character, as gold is a commodity itself. If the exchange of other commodities and services in a given country results in an unfavourable balance gold covers the deficit by flowing out from that country. And it can cover the deficit because it is a commodity itself. The outflow or inflow of gold is a movement of wealth from one country to another not less real than the outflow or inflow of grain or steel. Therefore, if instead of an inflow of gold a cheque on a foreign bank is sent to a country and the central bank which purchases this cheque does not use it for a direct import of gold but gives the order to a foreign bank to place the amount of the cheque to its credit, the transaction is not completed but its completion is adjourned. Instead of an inflow of a real commodity such as gold we have only a new form of claim on the foreign debtor.

If we assume that the inflow or outflow of foreign exchange regulates the balances of international transactions just as well as the movement of gold, we must admit that *the movement of real capital from one country to another in the form of bank credit is possible.* This would be contrary to facts and to science, which is unanimous in the opinion that the transfer of wealth from one country to another can only be effected by means of such real values as commodities and services.

Gold is the most suitable means for settling balances in the international transactions. Foreign exchange is not such a commodity as gold, consequently cannot settle the differences in international transactions. It is only a means *facilitating the adjournment of such settlement.* For it is an instrument of credit and not a substance.

The international movement of foreign exchange is not and cannot be a direct transfer of wealth from one country to another but gives only the illusion of such a transfer. Therefore, as long as a country applies exclusively the gold exchange standard and neither purchases nor sells gold *the balance of foreign payments of this country never is nor can be really settled.* Thus, the movement of foreign exchange is and can be only a movement of a special form of short-term credit and as such is not and cannot be in its working equivalent to the pre-war movements of effective gold.

This is the chief and decisive difference between the rôle of the movements of foreign exchange and the rôle of gold movements.

Let us suppose once more that a merchant receives in payment for exported goods a cheque for thousand dollars. The central bank purchases it and orders the amount to be collected and placed to the credit of its account in New York, whilst the merchant receives the equivalent in domestic currency. The working fund of the merchant becomes again liquid and can be used for the purchase of a new lot of goods. Thus, if the central bank deposits the amount of thousand dollars purchased from a merchant with a foreign bank, it grants to this bank a credit not out of a capital derived from savings but out of the working fund of that merchant who sold to the central bank the cheque resulting from the export of goods. In this way the working fund of our merchant begins to work simultaneously on both markets. The more cheques of this kind are purchased by a central bank, which thus increases the amount of such deposits abroad, the greater will be the increase in the total amount of short-term credits not originating in savings but in working funds. It is moreover a short-term credit only formally. Actually the term of such a credit is very often of medium length, extending over a number of years, particularly when the deposit is transferred from one bank to another, remaining in the same country.

All are in accord that a credit which is not derived from savings and which assumes considerable dimensions may have inflationary effects. The inflow of foreign capital is sound when it originates in "savings produced day by day but from no other source." [3] He who propagates a general and continuous application of the gold exchange standard, propagates a steadily increasing development of international credit which does not originate in actual savings. With the mass of such credit increasing from year to year on the international market inflationary elements are bound to creep into the economic structure. In this way the gold exchange standard complicates the process of the adjustment of world prices and instead of facilitating hinders the levelling up of excessive differences between the separate markets.

Under a gold standard, when the central banks did not issue notes for the purchase of foreign exchange and did not accumulate such reserves, the increase in the discount rate attracted foreign capital, as is now the case, but this was private capital derived from savings or working funds deposited with commercial banks by private undertakings or individuals. At present a rise in the discount rate brings about not only the inflow of private capital but also the inflow of deposits of central banks which under the gold standard did not and could not exist. Thus, the inflow originates in two sources. It ought to be taken into consideration, moreover, that the bank

[3] G. Cassel, *The World's Monetary Problems*, p. 95.

which accepts a deposit uses it for the granting of a credit, whilst a new credit usually brings about a further increase in deposits which constitute the basis for a further credit. Under these conditions the inflow of foreign deposits is multiplied by the expansion of bank credit and the growth of the credit structure considerably exceeds the amount of the inflow of foreign capital.

This does not facilitate the control of the central bank over the money market, but renders it more difficult. Private banks making more and more use of the inflow of foreign funds are emancipating themselves. The deposits of the banks which have adopted the gold exchange standard are responsible for the difficulties of the bank which is the gold centre in exercising a full control over the domestic market as they compete with the central bank and cross its policy. This explains the fact that "the dearness of credit ceases to be equi-significant with its contraction." [4] The reverse rather may be true. The manipulation of the discount rate becomes an insufficient weapon and for this reason the rôle of open market operations becomes more evident. As early as in 1923 the Federal Reserve Banks arrived at the conclusion that "an open market policy should be a system policy," as the ratio of reserves to liabilities has ceased to be, nor can it be, the guiding mark of credit policy in view

[4] F. Dreyse, "Fragen der Währungspolitik" in *Bank-Archiv.*, October 1, 1927.

of the lack of free trade in gold in international relations.

From the point of view of a prompt protection of currency stability the present system is more effective than the pre-war one. A greater and accelerated inflow of foreign deposits more easily raises the rate of exchange and checks the outflow of reserves. An example is furnished by the Netherlands in the autumn of 1927, where the rise in the discount rate immediately caused such a large inflow of foreign exchange that not only the rate of exchange of the Dutch florin rose and the outflow of gold was checked but in addition the Netherlands Bank very quickly repurchased foreign exchange to an amount greater than that which it had been previously forced to sell. And all would appear to be in order but for the fact that the increase in the discount rate not only failed to bring about a fall in prices but on the contrary the wholesale price index even rose slightly. With the present system, therefore, although the effect of the increase in the discount rate on the rate of exchange is more rapid, the adjustment of prices is delayed or is not attained at all.

A greater inflow of foreign deposits shows favourable results in the short run, as it immediately improves the rate of the exchange, but in the long run its results are less favourable as it delays an advantageous adjustment of prices to the world level. The improvement in the situation is based on credit and not on a more advantageous adjustment of prices. The equilibrium thus becomes more artificial and less fundamental. For the acceleration of the adjustment of the rate of exchange is attained at the price of a delay in the adjustment of prices.

The balance of foreign payments registers only the results of the differences between the price levels in a given country and those abroad. The rate of exchange of a currency, however, depends finally not on the balance of payments but on the level of prices, for the balance of payments is dependent on the price level. The rates of exchange gravitate and must gravitate towards their purchasing power parities. If the internal purchasing power of a currency decreases, its external rate sooner or later is bound to decline unless the outflow of reserves from the country causes a reduction of prices in time, or foreign credits help to overcome the crisis. Such credits, however, do not obviate the necessity of a better adjustment of internal prices to the external price level. For the rate of exchange cannot be always based on foreign credits. Either a fall in internal prices or an increase in foreign prices is bound to come in order that the stabilisation of the currency may regain a state of fundamental equilibrium.

The mass of foreign exchange reserves created by the application of the gold exchange standard being easily transferred from one market to another, complicates the process of the adjustment of prices and hinders the credit policy of central banks. In this way the gold exchange standard renders more difficult the levelling up of various purchasing powers. A careful examination of this question must lead to the conclusion that a contradiction exists between the theory of purchasing power parity and the propaganda in favour of the gold exchange standard. It is one of the post-war paradoxes that the increasing popularity of the theory of purchasing power parities apparently was made to harmonise with the growing propaganda in favour of the gold exchange standard.

On paper and in books it was made to harmonise but not in actual practice. Having inflationary effects and complicating the process of the adjustment of prices the gold exchange standard is responsible for a greater range of price fluctuations in the course of a year than was the case before the War. Price levels are at present more sensitive and unstable. This phenomenon may be observed even in America in spite of the stabilisation policy of the Federal Reserve Banks. Lansburgh [5] was right, therefore, when he made the remark that the regulation of the balance of foreign payments in Germany would be easier under a gold standard based on 500 millions of gold marks than under a gold exchange standard based on 1000 millions of marks in foreign exchange.

Only a few gold centres possess to-day free trade in gold. The remaining banks, even if they import

[5] *Die Bank,* November, 1926.

gold, do not sell but accumulate it in their vaults. This leads to a hoarding of gold and for this reason the adherents of the classic gold exchange standard would desire that gold be purchased only by gold centres, if such purchase is made for monetary purposes. The gold centres would have then the monopoly of purchasing gold derived from new production. Such a system, however, must in the long run give rise to very dangerous situations.

Let us suppose that gold is purchased and sold exclusively by a few gold centres. The banks which are gold centres would then be obliged every year to purchase the entirety of new gold mined and destined for monetary purposes. Such inflow would take place independently of the situation on the money markets of the gold centres, and only in the interest of the central banks which have adopted the gold exchange standard. The gold centres would then be obliged to have recourse to such operations as would neutralise the inflow of gold, should such inflow be undesirable from the point of view of the domestic scale of credit and level of prices. Such a policy would, however, always be rendered difficult by the inflow of foreign exchange reserves held on bank accounts in gold centres.

The accumulation of foreign exchange reserves must bear the character of an accumulation of foreign deposits in gold centres, for only the currencies of countries which are gold centres will be convertible into gold at any time. The whole system consists in that actual conversion into gold is adjourned, but only such foreign exchange may be treated on an equality with gold as is convertible into gold on demand.

The more limited the number of gold centres, the more limited must be the number of markets on which short-term deposits of banks which are not gold centres can be accumulated. The monopoly of purchasing gold is bound to be supplemented by the monopoly of accepting foreign exchange deposits. For gold centres will be more or less identical with centres of deposits, since only the former can give the maximum security for deposits and their convertibility into gold.

The banks which have adopted the gold exchange standard will become more and more dependent on foreign gold reserves, and the banks which play the part of gold centres will grow more and more dependent on deposits belonging to foreign banks. Should this system last for a considerable time the gold centres may fall into the danger of an excessive dependence on the banks which accumulate foreign exchange reserves and vice versa the banks which apply the gold exchange standard may fall into an excessive dependence on gold centres. The latter may be threatened with difficulties in exercising their rights to receive gold, whilst the former incur the risk of great disturbances in their credit structure in case of a sudden outflow of reserve deposits.

As long as peace is maintained and economic crises are absent, the system works smoothly. In case of international disturbances or complications in any of the gold centres it may easily be shaken. Foreign exchange reserves accumulated during a period of years may be transferred in bulk from one market to another, or converted in their entirety into gold. The possibility of a general desertion from this system cannot be excluded. In order to assure the gold centres against the risk of such a desertion we should have to enter the road of political guarantees, i.e., international treaties.

Strictly speaking no political treaty is able to remove such apprehensions. The unlimited issue of notes for the purchase of foreign exchange will always lead to the accumulation of foreign deposits in gold centres, whilst the accumulation of foreign exchange is an accumulation of rights to receive gold. The possibility of an actual exercise of these rights cannot be eliminated, as *the legal possibility of such a realisation in gold centres constitutes the very foundation of the gold exchange standard.* As a result the element of risk and uncertainty cannot be eliminated from the system. All the more so as the accumulation of foreign exchange deposits affords the opportunity of using this as a means of political pressure.

A system which consists in the existence of a small number of gold centres accompanied by an unlimited issue of notes by the rest of the central banks for the purchase of foreign exchange is not such a form of co-ordination between the gold bullion standard and the gold exchange standard as can in the long run be maintained. Co-ordination should protect against surprises not only during normal but also in abnormal periods. A system working smoothly under normal conditions and doomed in advance to failure in case of political or economic disturbances would be absurd.

The question arises, therefore, whether in lieu of a number of gold centres limited to the minimum and an unlimited gold exchange standard outside these centres, it would not be possible to find a better form of co-ordination which would consist in: (a) an unlimited number of gold centres, and (b) the limitation of the right of central banks which are not gold centres to issue notes for the purchase of foreign exchange. The right of unlimited note issue for purchases of foreign exchange might be left only to those countries which do not play any important part in world trade, as the accumulation of foreign exchange reserves on their part would not threaten international exchange of capital and commodities with disturbance.

The reform of the present gold exchange standard may be conceived in many forms.

It is not impossible, for instance, to arrive at an arrangement by which the foreign exchange reserves serving as cover for notes issued on an equality with gold must be held exclusively in central banks which are gold centres. The banks which are gold centres would then exercise a better control over the inflow of foreign exchange reserves, and their credit policy would be less complicated by the inflation of deposits from the banks which apply the gold exchange standard. In order to limit the issue of notes for the purchase of foreign exchange it would be advisable to insert in the statutes of the banks which have adopted the gold exchange standard a clause to the effect that only a fixed amount of foreign exchange may be included in the statutory reserve on an equality with gold (as was the practice, for example, of the Bank of Austria-Hungary before the War), or an amount not greater than the amount of gold reserves at a given time. In the first case the contingent of foreign exchange reserves would be rigid, whilst in the second case it could be changeable. In both cases it would be advisable to maintain the principle that the so-called minimal statutory reserve should consist entirely of gold and not only to the extent of three-quarters, as is the case to-day.

Similar limitations might be introduced in regard to the inclusion in the secondary reserve (the so-called bank cover) of foreign exchange on an equality with domestic bills. The ability to issue notes for the purchase of bills is not unlimited but depends on the condition of the fundamental cover. Within the limits of this ability the purchase of foreign exchange could not be unlimited, as the Bank is obliged primarily to discount domestic bills if it wishes to fulfill its duties. The discounting of foreign bills at the expense of domestic bills could not in the long run be maintained. In financially strong countries, however, it is not impossible that during certain periods the central bank would not have a sufficient amount of domestic bills for discount and its discount ability could then be used chiefly for the purchase of foreign exchange. It would perhaps be safer therefore to adopt a more radical principle, namely that foreign exchange may be included only in the fundamental reserve, but may not be included in the secondary reserve on an equality with domestic bills. A central bank would then issue new notes only for the purchase of the foreign exchange to be included in the fundamental note cover; any purchase of foreign exchange above the amount admissible in the fundamental cover would not be effected by the issue of new notes, but out of funds derived from deposits on current account. With such a system the printing of notes for the purchase of foreign exchange would be actually limited to a minimum.

With only a small number of gold centres the foreign exchange reserves of the banks applying the gold exchange standard are bound to gravitate exclusively towards these centres. This results from the principle that only foreign exchange convertible at any time into gold may be included in the fundamental reserve and only currencies of countries which are gold centres comply with this condition. As long as we concentrate transactions in gold exclusively in a very few banks, so long must we reconcile ourselves to the accumulation of reserve deposits in these currencies and in these centres of free trade in gold. Therefore, in order to mitigate the danger of an excessive accumulation one should either increase the number of gold centres, or adopt the principle that bank note cover may also include foreign exchange in stable currencies, which, although they may not be immediately convertible into gold, nevertheless may be exchanged for gold indirectly, i.e., on the basis of their convertibility into cheques drawn on gold centres such as New York or London.

The inclusion in the fundamental reserve of foreign exchange in stable currencies convertible into cheques drawn on countries whose currencies are convertible into gold is contrary to the principle of the gold exchange standard. For the fundamental reserve would include then, on an equality with gold, foreign exchanges which are not directly convertible into gold, i.e., the gold exchange standard of one country would be based on the gold exchange standard of another country instead of being based as heretofore, exclusively on gold centres. Such a reform of the gold exchange standard would kill the gold exchange standard. Instead of a co-ordination between the gold exchange standard and the gold bullion standard we should witness a trial of a co-ordination between the gold bullion standard and a managed paper standard.

The prospects for the future will not be better if we try to find an analogy between the foreign exchange operations of the central banks and their transactions in gold. Gold actually flows out from the selling country when a central bank purchases it. On the other hand when a central bank purchases foreign exchange, this need not leave the country of the seller. Let us suppose that the banks purchasing foreign exchange will immediately transfer it from one market to another. We should have then an analogy between the gold movements and the movements of foreign exchange. If Berlin should purchase foreign exchange on London it would be obliged to transmit it to New York, or vice versa.

The analogy is only apparent. Should all banks using the gold exchange standard actually apply the principle of an immediate transfer of foreign exchange, a feverish arbitrage in the currencies of the countries which are gold centres would ensue. Irrespective of the rate of exchange of a given currency and independently of the rate of interest the foreign exchange of one gold centre would be changed into the foreign exchange of another. The accumulation of such arbitrage operations would necessitate gold exports at times in order to protect the rate of exchange of that currency which might be endangered by a sudden accumulation of its supply for purposes of arbitrage. The gold centres which would not sell gold to central banks applying the gold exchange standard would be obliged at times to sell it to private banks in order to maintain the rate of exchange of the currency within the gold points.

Even if we were to succeed in avoiding marked disturbances in arbitrage operations we should not attain our goal, for foreign exchange is not a substance but a right to receive a substance and the exchange of one set of rights for another is not identical with the transfer of real wealth from one country to another. In this way we should only accelerate the movement of bookkeeping items but we should not create an actual movement of real values between countries.

It will not be possible by means of compulsory arbitrage to make the movements of foreign exchange actually similar to the movements of gold. Although the banks applying the gold exchange standard will not buy gold directly from gold centres, nevertheless they can indirectly compel the gold centres to sell gold to private banks if the excessive accumulation of foreign exchange reserves causes an excessive arbitrage. The greater the number of gold centres, the smaller will be the danger of an excessive accumulation and the greater the guarantee that the gold centres will not be compelled to sell gold in order to protect the rate of their domestic currency. This is the same conclusion at which we arrived when discussing the proposed limitation of the issue of notes for purchases of foreign exchange.

The proposed schemes for reforming the present gold exchange standard may vary. That is a matter for discussion. Whether we desire, however, to mitigate the danger of an excessive accumulation of foreign exchange deposits in gold centres, or whether we wish to diminish the adverse results of an unlimited issue of notes for purchases of foreign exchange, we always arrive at the same conclusion:

that we should increase the number of gold centres as far as possible.

With a greater number of gold centres the accumulation of foreign exchange reserves decentralises itself. With the issue of notes for purchases of foreign exchange limited to the minimum, the central banks which are not permanent gold centres will be obliged to become such only from time to time when *the condition of their balance-sheet will compel them temporarily to purchase and sell gold,* as at times by reason of their balance-sheet they will not be able to purchase or sell foreign exchange.

It sounds like a paradox, nevertheless it is true that the excessive economy of gold is not the best economy.

VI. GOLD AND FREE TRADE

THE overgrowth of customs barriers is characteristic of the post-war economic conditions everywhere not excluding Europe. This is the source of the well known Bankers' Manifesto published in the autumn of 1926 which declared that: "the breaking down of the economic barriers and the establishment of economic freedom is the best hope of restoring the commerce and the credit of the world." The existence of abnormally high customs barriers is regarded as one of the chief causes hindering the return of the world to prosperity.

Europe's ability to increase her exports of goods to America is hindered by the high customs barrier maintained by the American Government. America has preferred so far to lend to Europe rather than to purchase more goods in Europe. The lowering, therefore, of the tariff barrier hindering the inflow of European goods to America is one of the most discussed problems in the world.

America argues that her customs barrier maintains the high standard of living of the American workman, which is in Europe's interest as a high level of requirements in America means a high importing capacity for European goods. Should America lower her customs duties she would reduce her importing capacity. The standard of living of the European workman is, in fact, decidedly lower. This reasoning is not devoid of logic from the purely American point of view. It is difficult, however, not to see the reverse side of the medal.

A low standard of living in Europe signifies a low importing capacity in general and from America in particular. If Europe's indebtedness to America steadily increases and her exports to that country cannot increase on account of the American customs barrier, the European standard of living can not rise. The maintenance of a high standard of living in America at the expense of the standard of living in Europe will in the long run be the maintenance of high importing capacity of America at the expense of Europe's importing capacity. This is less logical.

Not being able to leap over the American customs barriers, Europe will be compelled to check the advance in her standard of living in order to facilitate export to other continents. A vicious circle will ensue, as the American tariff barrier will artificially check the advance in the standard of living in Europe, which in its turn will compel America to continue to pursue a protective policy in order to maintain artificially the high standard of living in that country. A policy of a vicious circle cannot, however, be stable. A gradual and reasonable lowering of the American barrier will become a necessity when the saturation of Europe with American credit checks Europe's abnormally large purchases in America and when the natural solidarity of the great creditor with the great debtor becomes more evident than is the case to-day.

The lowering of customs barriers in Europe is more complicated. The European barriers are high and a return to free trade as early as possible is most desirable. Import restrictions in the long run lead to export restrictions. Thus mercantilism leads to an artificial contraction and not to an expansion of the exchange of commodities. And Europe is particularly in need of an expansion of her foreign trade. Therefore, as regards principles at least, all economists should be in accord. As regards the rate at which such reduction of customs is possible, however, opinions may differ.

A sudden and radical change is not possible. The Geneva Conference in the spring of 1927 was right in recommending that we enter on the road of evolution. The Bankers' Manifesto in the autumn of 1926 was wrong, however, in thrusting the responsibility for the present difficulties in Europe above all on the new States and their customs barriers.

The mercantilism of new and economically weak countries should not be viewed in the same way as the mercantilism practiced by old and strong countries. For the protection policy of the new States was and is rather the result than the cause of the postwar difficulties. In addition the Bankers' Manifesto overlooked the fact that the share of the new States in European trade, in spite of their customs barriers is not below that of the pre-war States.

Let us examine, for example, the figures of the German exports: [1]

Exports	*In Million Marks* *1913*	*1926*	*Increase or Decrease*	*In %*
To Great Britain..	1,438.2	1,177.4	— 260.8	— 18.1
" Belgium	551.0	340.9 [2]	— 210.1	— 38.1
" Italy	394.7	416.2	— 21.5	+ 5.4
" France	789.9	269.4 [3]	— 520.5	— 65.9
" Portugal	52.1	60.7	+ 8.6	+ 16.5
Total	3,225.9	2,264.6	— 961.3	— 29.8

The exports of Germany to the five Western countries, with which she was at war, were in 1926 still 29.8% lower than in 1913 and reached the pre-war level only if allowance is made for the reparation payments in kind.

The German exports to pre-war European and Asiatic Russia in 1913 amounted to	880.2 mil. Mks.
The German exports to present Russia in 1926 amounted to	264.7 mil. Mks.
The German exports to the new States created on the territories formerly belonging to pre-war Russia in 1926 were as follows:	

to Esthonia	26.3 mil. Mks.
to Lithuania	28.7 mil. Mks.
to Lettland	61.5 mil. Mks.

[1] Quoted from *Wirtschaft und Statistik,* No. 2, No. 7, of 1927.

[2] Including Luxemburg.

[3] Including Alsace and Lorraine.

to Bessarabia [4] ..	17.1 mil. Mks.	
to the Polish provinces [4] formerly included in the Russian Empire	107.9 mil. Mks.	241.5 mil. Mks.
Total in 1926		506.2 mil. Mks.
The falling off in the exports as compared with the pre-war period thus amounted to		374.0 mil. Mks.

It will be seen that the territories separated from Russia which possess only 16.6% of the population of European Russia [5] in 1926 imported from Germany only 8.7% less than the whole Soviet Russia. This proves undoubtedly that the exports to the countries created on the territories separated from Russia reached at least the pre-war level. To show that the markets of Eastern and Southeastern Europe are of great importance to German exports it suffices to mention the article of Dr. A. Harder,[6] who states that: "About one fifth of the German exports in the post-inflation period was directed to the countries of Eastern Europe. This means that Eastern Europe plays a more important part in Ger-

[4] Calculated on the basis of the coefficient of the population, i.e., the exports to Bessarabia estimated at 14.1% of the aggregate volume of German exports to Roumania and the exports to former Russian Poland—at 53.6% of the total German exports to Poland.

[5] The population of pre-war Russia amounted in round figures to 146 millions.

[6] "Der Aussenhandel mit dem Osten und Südosten," Wirtschaftsdienst No. 16, of April 20th, 1928, p. 641.

man exports that North- and Latin America, Africa and Australia taken together."

The contention that Europe's difficulties are caused by the "break up of great political units" and the creation of new States whose "new frontiers are jealously guarded by customs barriers" [7] has become a legend but it is a misleading one. It is not the creation of the new States but the *Russian catastrophe* that is chiefly responsible for the fact that the internal European trade is not recovering at a more rapid rate. If Soviet Russia had been in 1926 as good a consumer of German goods as the population of the territories separated from Russia, the German exports to Soviet Russia in 1926 would have amounted to about 1,460 [8] mil. Marks, i.e., would have been more than four times greater than they actually were (+ 1,195 mil. Mks.). Deprived as they are of natural and traditional trade channels to the Russian and Siberian markets, the new States called into being on the territories of the former Russian Empire, and also, to a certain extent the Austro-Hungarian Succession States, are compelled to restrict their imports from the West, because their exports to the East are likewise too limited.

The new States were called into being on territories damaged by military operations. Consequently in the first years of their existence they were con-

[7] "A Plea for the Removal of Restrictions upon European Trade."

[8] According to the coefficient of population.

fronted with enormous import requirements for reconstruction while their exporting capacities were very small. Before increasing exports it was necessary first to rebuild the country's industry and agriculture. In the first years the balance of foreign trade was bound to be adverse. The ability, however, to cover this deficit was at a minimum on account of the lack of reserves in gold and foreign exchange.

The majority of the new States started their foreign trade with gold reserves virtually non-existent. Their foreign exchange reserves were not much greater. In addition their foreign credit was not established because they possessed unstable paper currencies. And foreign capital flows only into those countries in which the stability of the currency protects the creditor against any risk in the rate of exchange. Moreover several years had elapsed before America made up her mind to start investment activity in Europe on a large scale, while the meagre capital of Europe could not be sufficient and its repartition was bound to be hampered by political reasons from time to time.

Having neither gold and foreign exchange reserves nor established credit abroad, what was the new State to do in order to cover the deficit in its foreign trade balance? It had no choice but so to regulate the scale of its imports that the latter should not exceed the capacity of the country to pay in gold. Whenever the imports exceeded this capacity a depreciation of the currency ensued which contributed to limit imports even more effectively than customs barriers. Thus mercantilism became and continued to be a necessity until the new States by their own efforts and with the assistance of foreign credit had stabilised their currencies.

As regards the old countries the question of War debts towards America plays the same rôle in their protection policy as the lack of gold reserves and the Russian catastrophe in the mercantilism of the new States. The question of War debts is moreover linked with the German reparations in Europe. The aggregate amount of these reparations is not yet fixed as not only Germany's capacity to pay but also the capacity of the creditors to receive these payments, particularly the payments in kind, is still subject to discussion. Until however the total amount of reparations is fixed and their payment assured, the question of Europe's War debts towards America cannot be regulated. This question has entered at present into an acute stage. Sooner or later, however, it is bound to be settled on the basis of an approximate at least clearing of reparations against War debts. The reduction of War reparations and the reduction of War debts will have to be more or less equalised; this equalisation in any case should go far enough to protect Europe and America against any disturbances.

Until this is done the unsettled question of War debts and reparations, threatening as the sword of Damocles, creates an atmosphere of apprehension as to the capacity to pay in gold or in foreign exchange. From this source the mercantilism of the interested countries obtains its vital force. For the apprehensions as to the capacity to pay in gold and the fear of a commercial deficit are only the obverse and the reverse of the same medal.

Summing up, we arrive at the conclusion that the present mercantilism originates:

in the United States in the protection of an exceptionally high standard of living of the workman,

in Europe in the lack of settlement of War debts and German reparations, as far as pre-war countries are concerned, and

in the new countries created after the War in the reconstruction of territories ruined by the War, in the Russian catastrophe, in the lack of strong reserves of gold and foreign exchange and in the delay in the return to credit liberalism in international relations.

The examination of the causes of mercantilism does not release us from the duty of striving to return to free trade, since all of us are of the opinion that mercantilism checks the expansion of trade and Europe is particularly in need of such an expansion. In connection with the return to free trade however the question arises whether the gold exchange standard facilitates or hinders it.

Before the World War free trade was based on free trade in gold and on credit liberalism. Neither the movement of gold from country to country nor the movement of capital was hindered by any legal barriers. At present the legal barriers hinder the movement of gold in almost all countries; the movement of capital similarly is hampered in the majority of countries. Strictly speaking only America possesses free trade in gold, as in the other countries at least a moral embargo on gold exports exists. Under these conditions is it possible to expect a prompt and general return to free trade?

We have seen in the preceding chapter that the movement of foreign exchange from country to country is not identical with the transfer of real values and that in consequence it cannot level up the differences in the price levels as effectively as gold movements. For the accumulation of foreign exchange reserves, growing from year to year, creates an abnormal wandering of these reserves from one market to another, complicates the process of the stabilisation of internal prices and renders more difficult the levelling up of various price levels in international relations. Under these conditions the movement of prices has become more sensitive, more casual and shows greater fluctuations in the course of a year. This, of course, affects adversely the tariff policy as it increases in every country the apprehensions as to the condition of the foreign trade balance.

The concentration of the reserves in gold and foreign exchange in central banks works also to create such apprehensions. Deprived of protection in the form of a circulation of coins, the central banks became a more sensitive barometer. The deficit in the balance of foreign payments is immediately reflected in the reserves of the central bank and its periodical balance-sheets, whose publication is obligatory, inform the public of any such change. The concentration of the reserves has led to a concentration of general attention and any large even temporary outflow immediately gives rise to anxiety. National psychologies became supersensitive on the point of temporary deficits in the reserves of central banks. As a result the monthly deficits in the balances of foreign trade give ground for exaggerated anxiety.

Before the War under normal currency conditions and with credit liberalism in international relations, the statistics of foreign trade returns did not play such an important part as nowadays. The change is bound to favour mercantilism, since at present public opinion supports such a tariff policy as tends to guarantee the equilibrium of foreign trade. And every Cabinet must reckon with the political opposition, which is ready to raise an alarm whenever the balance-sheet of the central bank or the balance of trade shows deficits.

Thus the influence of political factors on the question of foreign trade outruns the effects of the reduction of prices. This is all the more possible because the accumulation of foreign exchange reserves and the wandering of these reserves from one market to another complicate the process of the adjustment of prices. In a country in which the deficit in the balance of foreign payments causes an outflow of reserves and a rise in the rate of interest, the excessive and rapid inflow of short-term foreign credits checks and delays the reduction of prices. Before this can occur, if it can occur at all, political factors have sufficient time to mobilise public opinion and set it against the opinions of economists.

European mercantilism originated and still arises more from apprehensions as to the condition of the reserves of the central bank and as to the country's capacity to pay in gold than from a conscious policy of protecting home industry. The protection of home industry is oftener the result of the protection of gold and foreign exchange reserves than the cause. The gold exchange standard by strengthening such a false orientation does not facilitate but on the contrary hinders the return to free trade.

It is possible that the above opinion does not wholly carry conviction. One thing is clear however: If the world could return to free trade in gold the return to commercial liberalism in general would be easier. *As long as we do not possess free trade in gold, which is the most important commodity, we cannot expect to succeed in restoring free trade in the less important commodities.* It is illusory that it will be possible to develop and maintain free trade in motor cars if trade in gold is not free. The road to prosperity will be safer if it leads through free trade in gold to free trade in other commodities, than vice versa.

Some one has suggested [9] that the central banks should exert pressure on the various governments with the object of lowering customs barriers. They would do better, however, if they would bring about an international arrangement with a view to lifting the legal barriers hampering trade in gold. For the restoration of free trade in gold would be a more effective manifestation of the spirit of liberalism than the various international conferences which have devoted themselves to the question of customs barriers.

[9] "Mitteilungen des Verbandes Oesterreichischer Banken und Bankiers," 1927, No. 8.

VII. THE FREEDOM OF GOLD MOVEMENTS

The supply of gold from new production presents unsatisfactory prospects. A rigid economy, therefore, in the manipulation of gold is most desirable. In practice, however, the existing reserves are subject to hoarding by the majority of central banks, as the banks which have adopted the gold exchange standard have no obligation to sell gold and the majority of countries have placed legal embargoes on gold exports.

The American reserves are the most important as they represent the greatest accumulation of gold ever recorded. America is, moreover, the only market in which neither legal nor moral embargo on gold exports exists. The repatriation of gold from America to Europe, however, is effected by the action of the banks, which are on the gold exchange standard; they withdraw gold purchased in America from the market and hoard it in their vaults. They buy gold, but do not sell it. If they continue to purchase gold and refrain from selling it the repatriation of American gold will fail to produce the desired results, for although the distribution of the world's monetary stocks of gold will become more uniform from the statistical point of view the amount of gold available for future purchases will diminish.

The hopes placed in the gold exchange standard as a system of economising gold have thus proved illusory. The accumulation of foreign exchange reserves exercises a disturbing influence on the credit market and on the process of adjustment of world prices. If we wish, however, to limit in any way the right of note issue for the purchase of foreign exchange and to mitigate the danger of an excessive accumulation of foreign exchange reserves, we always arrive at the conclusion that the number of centres possessing free trade in gold should be as large as possible.

The theory of a small number of gold centres, particularly the theory of two centres, does not withstand theoretical criticism and in practice has no chance whatever of success. It is, moreover, a theory contradictory to the principle of free trade, which principle if generally applied should facilitate the return to prosperity.

From whatever point of view we examine the present monetary system, we always arrive at the conclusion that free trade in gold should be restored as soon as possible. The movements of foreign exchange cannot replace gold movements. The co-ordination of the gold bullion standard with the gold exchange standard cannot be based on the principle of the closest possible concentration of gold, in the sense of the narrowest possible limitation of the number of centres possessing free trade in gold. On the contrary such co-ordination, if it is to be lasting and if it is to serve to stabilise the international interdependence of currencies, requires free trade in gold on the largest possible scale.

Gold movements would then correct the weaknesses of the movements of foreign exchange, and the movements of the latter would render possible economy in the movements of gold.

The pre-war system based on the gold standard can be reformed and adapted to the present conditions. The gold bullion standard and the gold exchange standard are two forms of such adjustment. The co-ordination of these two forms is indispensable, but it cannot be attained at the price of disregarding that factor which is the most essential feature of any gold standard i.e., *the freedom of gold movements from country to country.* The convertibility of notes into gold coins or bars, or the system of maintaining gold reserves at least to the amount of 40% of all liabilities of the central bank, were only secondary features of the gold standard. Therefore, the restoration of free trade in gold in the world is essential, if a sound and lasting co-ordination of the gold bullion standard with the gold exchange standard is to be attained. This would prove a more effective link between the two systems than any personal agreements as to refraining from purchases of gold on the markets in which a moral embargo exists.

This conclusion is more or less identical with the principles laid down by Professor Cassel in his Memoranda addressed to the international Conferences in Brussels and Genoa. He put forward then as remedial measures for the sanitation of post-war conditions: [1] "first that we have a world-wide gold market with fairly free movements of gold, secondly that the world's balances of payments are normally settled without much recourse to this gold market." It would be difficult to reconcile with such a policy the theory of two, or not much more than two, gold centres, with an unlimited note issue for the purchase of foreign exchange by the remaining banks. For then the movements of gold would be "fairly free" only between gold centres. The remaining markets would possess only movements of foreign exchange. The trial of such a system undertaken after the Genoa Conference did not bring about lasting and advantageous results, and it is just for this reason that the problem of the gold exchange standard has entered at present into a critical stage.

That this is the case is borne out by the lively debates carried on over this subject everywhere, as well as by the equally animated purchases of gold by banks which for the past several years have loyally applied the gold exchange standard and recognised the theory of a limited number of gold centres without "fairly free" gold movements on a "world-wide" scale.

[1] *The World's Monetary Problems,* 1921, p. 128.

Are European conditions mature enough for the return to free trade in gold? Does Europe possess sufficient reserves for this purpose?

Europe's monetary stocks of gold before and after the World War were as follows: [2]

	In Million Marks		
Europe	*1913*	*1926*	*Changes*
Monetary stocks of gold in central banks	14,375.4	14,442.2	+ 66.8
Gold coins in circulation	9,903.3	236.0 [3]	— 9,667.3
Total gold reserves	24,278.7	14,678.2	— 9,600.5

The diminution in the total gold reserves (i.e., gold in the vaults of the banks and in circulation) reached the large amount of 9,600 million Marks. This decrease, however, was almost entirely offset by the increase in the foreign exchange reserves possessed by central banks, which amount at present to about 2 billion dollars i.e., to about 8.4 billion Marks. One should add also to this amount the increase in the circulation of dollar notes (not easy to

[2] "Wirtschaft und Statistik," No. 15, August, 1927.

[3] The amount of gold coins in circulation in Europe in 1926 estimated by *Wirtschaft & Statistik,* seems to be too small because the amount of gold coins in circulation at the end of 1927 only in the Netherlands and Switzerland amounted to 214 million marks. If we take into consideration also the other countries and the circulation of the pre-war gold roubles in the countries of Eastern Europe the total amount of gold coins in circulation in Europe will be considerably greater.

estimate) in countries which have passed through paper money inflation, as well as the large circulation of pre-war gold roubles which still plays an important part in Eastern Europe.

The gold reserves of European central banks increased in 1927 by 791.6 mil. Marks. Owing to this increase the total monetary stocks of gold in Europe, plus the foreign exchange reserves of central banks at the end of that year, were only 1.6% less than the total reserves of monetary gold (in banks and in circulation) of 1913. In the current year 1928 the level of 1913 has probably already been reached. Thus the present situation in absolute figures is not worse than that reigning before the War. It presents, however, a less satisfactory aspect if we take into consideration the advance in prices as compared with the price-level of 1913 amounting to about 50%. If prices have risen by about 50% and the total reserves at the disposal of Europe have reached only the level of 1913 we have a disproportion which does not speak in favour of a general return to free trade in gold. It would be premature, however, to draw such a conclusion before examining the relation of the gold reserves of the chief central banks to the value of the foreign trade of the respective countries. This relation is shown in the following table: [4]

[4] The above table is compiled on the basis of the publication of the League of Nations, *Bulletin Mensuel de Statistique*, Société des Nations, Genève, Nos. 1 and 2, January and February, 1928.

In Millions 000,000 omitted

Countries		Imports	Exports	Total foreign trade	Monetary stocks of gold in central banks [5]	Ratio of gold to foreign trade	Ratio of gold to imports
France	1913	8,421	6,880	15,301	3,517	23.0	41.7
———	1925	11,009	11,513	22,522	5,548	24.6	50.4
Gold	1926	10,016	10,019	20,035	5,548	27.6	55.4
Francs	1927	10,749	11,231	21,980	5,545	25.2	51.5
Germany	1913	10,770	10,097	20,867	1,170	5.6	10.8
———	1925	12,362	8,798	21,160	1,208	5.7	9.7
Marks	1926	10,001	9,783	19,784	1,831	9.3	18.3
	1927	14,143	10,219	24,362	1,864	7.7	13.1
England	1913	659	525	1,184	35	2.9	5.3
———	1925	1,167	773	1,940	145	7.5	12.4
£	1926	1,117	652	1,769	151	8.5	13.5
	1927	1,096	709	1,805	152	8.4	13.9
Italy	1913	3,646	2,512	6,158	1,376	22.3	37.7
———	1925	5,404	3,769	9,173	1,553 [6]	16.9	28.7
Gold Lire	1926	5,220	3,767	8,987	1,563	17 4	29.9
	1927	5,437	4,167	9,604	1,593	16.6	29.3
Holland	1913	3,903	3,065	6,968	151	2.1	3.8
———	1925	2,455	1,808	4,263	443	10.3	18.0
Dutch	1926	2,442	1,749	4,191	414	9.8	16.9
Florins	1927	2,549	1,900	4,449	400	8.9	15.7
Switzer-land	1913	1,920	1,376	3,296	170	5.1	8.3
———	1925	2,633	2,039	4,672	467	9.9	17.7
Swiss	1926	2,415	1,836	4,251	472	11.1	19.5
Francs	1927	2,564	2,023	4,587	517	11.2	20.1
Sweden	1913	847	817	1,664	102	6.1	12.0
———	1925	1,446	1,360	2,806	230	8.1	15.9
Swedish	1926	1,490	1,419	2,909	224	7.7	15.0
Crowns	1927	1,575	1,711	3,286	230	7.0	14.6
Spain	1913	1,306	1,058	2,364	480	20.3	36.7
———	1925	2,244	1,585	2,829	2,537	89.3	113.0
Pesetas	1926	2,148	1,605	3,753	2,557	68.1	119.0
	1927	...	...	...	2,604	..	..
Denmark	1913	777	637	1,404	73	5.2	9.4
———	1925	1,937	1,789	3,726	209	5.6	10.7
Danish	1926	1,528	1,406	2,934	209	7.1	13.0
Crowns	1927	1,554	1,445	2,999	182	6.1	11.7

[5] At the end of the year.

[6] Including 419 million gold lire held abroad, but not including the gold reserves of the State Treasury.

It will be seen that the ratio of the gold reserves of central banks to the value of imports showed a marked improvement in all countries with the exception of Italy which registered a decrease of percentage and Germany where the increase was not large. In both these countries, however, the central banks in addition to gold possess considerable foreign exchange reserves, as is the case with the other banks included in the above table, the Bank of England being the only exception. The foreign exchange reserves of the Bank of France have even reached unprecedented dimensions. Hence it results: 1. that the reserves in gold and foreign exchange of the countries included in the above table are so large that they counterbalance the advance in prices as compared with the price-level of 1913 and the lack of circulation of gold coins, 2. that the repartition of gold and foreign exchange reserves in Europe is not sufficiently uniform.

We have seen above that the total European reserves in gold and foreign exchange, which are in possession of central banks, have only reached the level of gold reserves (in banks and in circulation) of 1913, i.e., that they do not counterbalance the advance in prices as compared with the price level of 1913. On the other hand we have seen that in the countries included in the above table the increase in the reserves in gold and foreign exchange offsets both the advance in prices and the lack of the circulation of gold coins. We may draw the conclusion, therefore, *that a general return to gold payments in the whole of Europe would be premature.* The resumption of gold payments would, however, *be possible in a few countries,* outside England, Holland, Switzerland and Sweden, *which possess gold and foreign exchange reserves counterbalancing the advance in prices, and in which the ratio of such reserves to the value of the imports is not only not worse but even better than in 1913.* This group of countries includes at present also Norway and France.

The economic conditions in the whole of Europe are not mature enough for a general resumption of gold payments. None the less it is true that it would not be risky to increase markedly the number of centres of free trade in gold. The rest of the countries may for a number of years to come apply the limited gold exchange standard, or even the unlimited standard in the case of economically weak countries whose foreign trade does not play any important part and where the system does not entail the danger of an excessive accumulation of foreign exchange reserves.

The limitation of the right of note issue for the purchase of foreign exchange might be settled by means of Conferences of Experts and not by public discussions. Such Conferences should chiefly analyse the proposed schemes dealt with in the fifth chapter and which aim: 1. to establish the admissible ratio between the amount of gold and the amount of foreign exchange in the fundamental reserves, 2. to eliminate foreign exchange from the secondary reserve, or to fix the proportion in which foreign exchange may be included in it. Having reached the admissible proportion the given bank would be obliged to refrain from purchasing foreign exchange and to start purchasing and selling gold and would thus temporarily become a gold centre on an equality with the permanent gold centres. It would not be advisable also to convert, suddenly and in bulk, the accumulated foreign exchange reserves into gold. On the other hand measures should be adopted which would protect against a further and excessive accumulation of such reserves.

The new system might moreover be strengthened further by stabilisation credits secured by commercial bills and granted by various groups of central banks to their separate members, as is done at present in some exceptional cases. Such credits should be mutual and should be opened in case of emergency. Besides such mutual short-term credits it would not be impossible to arrange special long-term loans in gold which would be contracted with the object of a better repartition of gold. The scheme for such gold loans with the object of strengthening the gold reserves in England was put forward by Anderson [7] in America. Simultaneously Professor Reisch [8] on the basis of a more detailed analysis of this question

[7] *The Chase Economic Bulletin,* October 29, 1927.

[8] *Neue Freie Presse,* December 25, 1927.

suggests that a comprehensive plan of granting such loans to the majority of countries be worked out.

The greatest impediment on the road to free trade in gold is the psychology of hoarding gold, which is a survival of the mercantilist ideas and which is supported by the difficulties in post-war national economies. General attention is concentrated on the future prospects of the production of gold and on American reserves. For fear of a falling off in the production of gold and an uncertainty as to the repatriation of gold from America public opinion in every country is supersensitive. As a result gold instead of being an active instrument has become merely a window-dressing for the majority of European currencies, while we forget that should the same amount of gold freely circulate in international relations it would play its rôle better than when hoarded in the vaults of the bank. The same amount of gold by its movements from country to country would do more for the consolidation of currencies than if hoarded onesidedly.

The habit of hoarding gold is based also on the principle of the so-called minimal statutory gold reserve against combined note circulation plus sight liabilities of central banks. The central banks which have adopted this principle possess considerable reserves in gold which will never appear on the market, since under normal conditions the deficit in the balance of foreign payments disappears in time, owing to a deflation policy of the bank, before the last and well hidden reserves can be depleted. Every central bank has its rock-bottom of the deepest deposit of gold reserves which never appear on the market. The principle of a rigid minimal reserve requirement has been responsible for the fact that this deepest deposit of gold has been uneconomically large.

The newest Statutes of central banks maintain the principle of a minimal reserve requirement formally but they make it less rigid in practice by allowing lower reserves subject to penalty in the form of a progressive tax on the excess issue of notes which causes such lowering of the reserve ratio. It is undoubtedly a progress. We have not yet however reached the stage in which public opinion everywhere understands the rationality of an elastic manipulation of gold. Even in England, while some would prefer to retain the old rigid traditional principle of bank note cover, others just now are pondering [9] whether it would not be as effective if the Bank of England should work with gold reserves amounting merely to 20 mil. pounds sterling plus a "margin of safety." For experience has showed that the Bank of England by changing the rate of discount and by resorting to open market operations can always check an outflow of gold exceeding 20 mil. pounds. It would be difficult to imagine a greater discrepancy of opinions.

The opponents of the return to free trade in gold

[9] *The Statist*, February 11, 1928.

point out that the repartition of gold among the European central banks is not uniform, that disparity between the internal and the external purchasing power of various currencies is still excessively large, and that if a return to free trade in gold should be decided upon this step should be taken simultaneously by the majority of countries. As far as the simultaneousness of a return to free trade in gold in the majority of countries is concerned the opponents are right. Even England when she resolved to take this step was obliged to secure the co-operation of America and several other markets. The other arguments however are not so well chosen.

The repartition of gold among the central banks is not a question of mechanism depending on the will of the authorities of those banks. The inflows and outflows of gold result from the differences between price-levels and rates of interest. If the process of the adjustment of prices cannot develop as naturally as in the pre-war period because the gold exchange standard complicates the structure of credit and currency circulation, the repartition of gold among the central banks likewise cannot be achieved normally because the process of adjustment between the internal and external purchasing power of currencies is not a normal one. The various price-levels, not being linked together by the levelling movement of gold, possess rather the character of local price-levels, independent of other levels, instead of entering smoothly into the structure of world prices.

By postponing the return to free trade in gold and practicing the gold exchange standard we do not facilitate such return. Any one who wishes to postpone the return to free trade until such time as the repartition of gold improves and the excessive differences between the internal and external purchasing power of currencies disappear, by so doing enters into a vicious circle. For the longer free trade in gold is absent, the longer we shall experience excessive differences between the internal and the external purchasing power of currencies and the longer the repartition of gold will be effected in an abnormal way.

The prolongation of the existence of the unlimited gold exchange standard as a preparatory method for the return to free trade in gold recalls the labours of Sisyphus whose burden pushed to the top of a hill always rolled down again.

VIII. CLEARING IN GOLD

EUROPE has succeeded in getting away from gold operations and has accustomed herself to foreign exchange operations. Conditions concerning gold arbitrage have also changed.

Pre-war gold points have come nearer to each other, since shipments by air-mail compete with increasing success with shipments by rail and steamer. The spread between these points has a tendency to decrease. If it were possible to ship gold between Europe and America by aeroplane the present margin of the dollar gold points [1] would be reduced to one half of the pre-war margin.

Before the War, arbitrage operations resulting from difference in the rate of exchange played the leading rôle. Since the War the lead has been taken more and more by special transactions resulting from various causes and carried out sporadically by the central banks which are not obliged to consider loss of interest when establishing gold points.

All these changes indicate that the pre-war arbitrage system has become disorganised and that imports and exports of gold have taken on certain marks of uncertainty and involve now a greater risk

[1] *The Banker,* London, December, 1927, p. 608.

than before the War. A bank of issue which in order to stop an excessive accumulation of foreign exchange reserves might wish to stop the purchase of foreign exchange would have to bear this fact in mind; for the technique of the movement of gold from one country to another, in comparison with the movement of foreign exchange does not possess sufficient competitive capacity.

A reform of the gold exchange standard on the line of a limitation of note issues for the purchase of foreign exchange requires a reform of the technique of the trade in gold. The technique of gold imports and exports must be modernised, that is, adapted to post-war conditions. For this purpose it will be necessary above all that the central banks establish a new post-war calculation of gold points. In this calculation the central banks ought 1. to eliminate loss of interest on transactions between each other, because they dispose of capital gratis, 2 to stabilise as far as possible the cost of transportation and insurance, because the trade in monetary gold affects the rate of interest and the level of prices and therefore is of outstanding importance for public interest. The trade in gold performs a higher and exceptional public function and herein differs from the trade in other goods. The central banks possess enough power and influence, especially when acting in co-operation, to assure such a stabilisation of the costs of transportation and insurance within the limits of relatively insignificant fluctuations.

Following the creation, by way of co-operation, of such a new, post-war system of gold points, actual gold transactions must be organised in such a manner that the movement of gold will be able to compete successfully with the movement of foreign exchange when a central bank suspends the purchase of foreign exchange and has to base the stability of its currency on gold alone. The movement of gold should become as easy and quick as the movement of foreign exchange. The technique of gold transactions ought to become as similar as possible to the technique of foreign exchange transactions if we want European markets to become again accustomed to the use of gold and abandon the custom of settling payments exclusively by foreign exchange.

This aim could be reached, in approximation, by a more perfect and widely spread clearing in gold transactions. If a central bank sells gold and the gold is immediately exported it may often happen that the same gold returns in a short time. Seasonal gold movements cause numerous and repeated shipments of gold as expensive as they are unnecessary. If a clearing system could be devised seasonal shipments of gold could be dispensed with.

A sale of gold should not always be identical with a physical shipment of gold abroad. Under such a plan actual shipments of gold from one country to another would be limited to those net transactions only resulting from the final differences in the balances of payment and representing transfers of a relatively permanent and non-seasonal nature. These would be transfers of larger amounts of gold between central banks rather than private arbitrage operations resulting from seasonal rate fluctuations.

A retirement of gold coins from circulation has taken place in the name of economy of gold. It would be equally purposeful to reduce to a minimum the international circulation of bullion.

This task could be performed by gold clearing, based on the *relative stabilisation of a new system of gold points established by an understanding among central banks.* The stabilisation of a new system of gold points agreed upon by the interested banks would facilitate the settlement of accounts and therefore contribute to the development of clearing operations. This would not, of course, exclude a revision of the gold points from time to time, but nevertheless the market of each country would enjoy prolonged periods during which the value of gold points would be a fixed value because such would be the practice of the central bank in the settling of accounts with foreign countries.

Transports between central banks occur relatively seldom and involve considerable amounts; therefore expenses could be calculated separately in each case. The usefulness of stable gold points would not be evidenced so much in the case of actual shipments of gold as in the case of a purchase by a central bank of gold held as a deposit on behalf of another central bank. In this instance, no actual shipment would be involved and with stable gold points a settlement would be facilitated. Stable gold points would be equally useful if central banks should organise a new form of gold transactions unknown before the War, that is, if they should begin to sell gold out of their foreign deposits not only to other central banks but to the public.

The sale of gold to private buyers out of the gold of a central bank held as a deposit in another central bank would be equivalent to the introduction of a new means of payment in international relations. If a merchant in Berlin has to pay for goods in London and payment in gold would be cheaper than payment by cheque drawn in sterling on one of the English banks, the following procedure might be conceivable: the Reichsbank would sell to the German merchant a certificate calling for an exactly determined amount of gold and drawn on the Bank of England against the deposit of gold held on behalf of the Reichsbank by the Bank of England. The English merchant could realise the certificate received from Germany at the Bank of England and sell the gold so obtained either to the Bank itself or in the free market.

The outflow of gold from Germany and inflow of gold into England would thus be effected without a physical transport. Nevertheless the Reichsbank, when selling such a bullion certificate would have to add the cost of transportation and insurance which would have fallen on the buyer of the certificate if he had actually bought the gold at the Reichsbank and shipped it to London. These charges would have to correspond to the expenses of the Reichsbank incurred when actually shipping gold from Berlin to London.

In determining these expenses the Reichsbank could omit loss of interest for the duration of the transport because central banks work by means of monies on which they pay no interest. For the merchant, therefore, the purchase of a certificate for gold in London might be not only cheaper than the purchase of a cheque on one of the private London banks but likewise less expensive than the cost of transportation if he had to handle the shipment himself, since, in that case, he would have to include in the calculation the loss of interest on the funds utilised for the purchase and shipment of gold.

The purchase and sale of gold by central banks at their office before the War was subject especially to the cost of minting coins. The circulation of gold coins belongs to the past. Costs of minting coins, therefore, are also gradually becoming a thing of the past. If, on the other hand, central banks should organise the sale and purchase of gold out of their deposits abroad, the cost of transportation as a basic component of the price would assume the leading part. It is clearly understood that the introduction of such a system would be possible only on the basis of stable gold points established by co-operation of central banks. It is furthermore clear that under such a system the technique of gold operations would become similar to the technique of foreign exchange operations and the movement of gold could quickly be restored, although the arbitrage would be effected without actual transports of gold from one country to another.

The vanishing of transports resulting from private arbitrage would make the transportation and insurance companies dependent upon central banks as practically the only customers in the field of international transportation of gold. This would contribute to assure the stabilisation of the item of transportation and insurance in the calculation of gold points.

The introduction of bullion certificates would constitute the introduction of a new international medium of payments. The idea of such gold certificates is not a new one. At the time of the discussions which preceded the organisation of the Federal Reserve System, the utility of such a medium of payments was put forward in America.[2] Already at the time, in 1908, attention was called to the fact that such certificates would represent for all practical purposes the transfer of gold coin and bullion without the necessity of transferring the metal itself.

A certificate convertible into gold everywhere except in the country of origin could circulate and for this reason would represent something like an international bank note. This would be going too far be-

[2] I quote from Schwarz, *Diskontpolitik*, p. 231.

cause a circulating certificate would not only render gold shipments unnecessary but would at the same time represent a new form of money. In present conditions, this should be avoided rather than sought.

The bullion certificate should do away with the international seasonal circulation of bullion, but it should not be a new form of money, especially of international money. If the certificate became money, a new form of foreign exchange would be created which would compete with the present forms of foreign exchange. A limitation of the accumulation of foreign exchange reserves by the introduction of a new form of foreign exchange would be illogical and detrimental. For these reasons the bullion certificate here suggested would have a practical meaning only if subject to the following restrictions:

(1) the bullion certificate should be issued not in terms of money units but in units of weight, i.e., not in dollars but in ounces of gold;
(2) the central bank issuing such a certificate should draw it exclusively on another central bank expressly named in the certificate and with which the issuing bank actually possesses a deposit of gold;
(3) the validity of the certificate should be limited as to time and should continue only somewhat longer than the time required for an actual shipment of gold from the issuing country to the country of destination.

If these three conditions were complied with the bullion certificate would become a new and convenient means of payment between two countries, but it would not become a new kind of money able to circulate without limit as to time and among an unrestricted number of countries. The certificate would do away with the seasonal circulation of bullion but would not bring about the circulation of a new form of international money. It would represent a means of replacing physical gold shipments but it would not be a new credit instrument. For credit purposes such a certificate could be used only within such modest limits as, for instance, a bill of lading made out for a gold shipment during the time of transportation; since the validity of the certificate as to time ought not to exceed say a fortnight in Europe and four weeks for certificates drawn in Europe on America.

If, moreover, a bullion cable transfer were introduced, that is, if by an understanding among central banks the sale of gold deposited abroad could be carried out on the basis of telegraphic instructions the facilitation of gold movements by way of eliminating unnecessary physical shipments would be still more far-reaching and the danger of creating a new form of money would be still smaller. The central banks, however, when placing at the disposal of the public such far-reaching possibilities of gold arbitrage without actual gold shipments, would have to consider seriously whether the loss of interest should be disregarded when establishing gold points.

As regards clearings between central banks the elimination of interest is justified, because the banks operate by means of funds on which they pay no interest. As regards, however, the sale of bullion certificates and cable transfers for purposes of arbitrage it must be taken into account that the disregard of the loss of interest would reduce too much the spread between gold points. With a small spread between gold points, arbitrage transactions in gold would enter the field earlier and more often than was the case under the pre-war spread. This would not be desirable, for too quick and frequent movements of gold, even if carried out without involving actual shipments, might become a disturbing factor in the money markets and endanger the relative stability of the rate of interest.

It would be premature to enter upon technical details in connection with such a project of bullion certificates and cables. The suggestion of such operations serves here as an illustration of the fundamental idea that the present stock of gold may prove adequate to restore free trade in gold if the technique of this trade undergoes the proper process of modernisation. For it is not absolutely necessary to introduce bullion certificates in order to check the international accumulation of foreign exchange reserves. Simpler methods are conceivable.

Let us assume that a central bank introduces a restricted gold exchange standard in accordance with a clause which provides that the holdings of foreign exchange included in the fundamental reserve may not exceed the holdings of gold. It may then happen that the bank arrives at a point where it is not able, for statutory reasons, to continue the purchasing of foreign exchange. It may also occur, in the case of an outflow of foreign exchange, that the Bank, not desiring to part with interest-bearing assets, will be obliged to proceed to the sale of gold in place of foreign exchange. In either instance, instead of having recourse to direct gold transactions with private customers, the Bank may itself purchase or sell gold in the free market or from other banks of issue.

As regards the outflow of foreign exchange the matter is much simpler. The bank may sell part of its gold abroad, exporting it or earmarking it on behalf of the foreign buyer. Against the gold sold the bank obtains an equivalent in the form of a foreign balance and it can continue to sell drafts against this balance. Whether the bank sells part of its gold and continues to sell drafts against the balance created by the sale of gold, or whether it proceeds to sell to private buyers bullion certificates against its holdings of gold earmarked abroad, there is in either case no danger of entanglements. Technically it is much easier and simpler for one central bank to sell gold to another and to continue to sell foreign exchange in its dealings with private customers.

The situation becomes more complicated in the case of an inflow of foreign exchange. If the bank is approaching the amount of foreign exchange permissible under its Statutes, and does not want to begin buying bullion certificates or gold actually imported by way of private arbitrage, nothing is left to it save to exchange any amount of foreign exchange it holds in excess of the statutory limit into gold in the free market abroad or at another central bank. In order not to be taken by surprise the bank would be obliged, in such case, to buy a larger amount of gold in advance. Such a case, technically simpler, occurred in France, in the spring of 1927. The Bank of France began to purchase in the London market gold with foreign exchange, and this practice threatened to impair the equilibrium of the English money market. The outcome of this incident is known—the crisis of the gold exchange standard.

Purchases of gold by a bank of issue are made in large amounts and are concentrated in some one market. Private purchases for arbitrage purposes involve comparatively smaller amounts and come from many markets. Concentrated purchases affect the money market more severely and therefore private arbitrage transactions, if given the form of bullion certificates, would react more gently even though they are technically less simple.

It is possible to bring about a restriction of the gold exchange standard without introducing bullion certificates, and the method of direct concentrated gold transactions by the banks of issue is technically more simple. However, in the case of a large inflow of foreign exchange the bank of issue would be compelled to proceed to large and concentrated purchases of gold. This would mean greater disturbances in the international market.

When the method of concentrated gold transactions, carried out directly by the central bank, is applied there is no room left for private gold arbitrage transactions because the bank of issue is always able to meet the demand for foreign exchange or take up the supply in the market. Gold becomes permanently inaccessible to the public and the public becomes accustomed to foreign exchange transactions as the exclusive medium of payments in international relations. The psychological effect is not good, especially in countries which have passed through a paper inflation.

No more is it desirable that the family of banks of issue, as regards their relations with the private clientèle, should become permanently split into two groups: one consisting of a few banks which exclusively follow the method of purchasing and selling gold, and the other of the remaining banks which exclusively buy and sell foreign exchange. So long as there exists two groups of banks it will be difficult to induce the public to believe that the world is based on one system, the gold standard. Confidence in a currency based on gold transactions exclusively will tend to outweigh confidence in a currency based exclusively on foreign exchange transactions.

It would be futile to linger upon a further detailed analysis of the question which of the two methods is better: the method of direct concentrated gold transactions carried out by banks of issue, or the method of private arbitrage in gold facilitated by the sale and purchase of bullion certificates. As regards the restriction of the gold exchange standard and the excessive accumulation of foreign exchange reserves either method would be helpful in reaching the goal in a more or less efficient manner depending upon the situation of the market. Views concerning the usefulness of the one method or the other may therefore differ. But there will be no difference of opinion concerning the clearing in gold which facilitates the application of the one method as well as the other and which has already become one of the foremost problems confronting banks of issue.

Beginnings of gold clearing may be observed more and more often in the relations among central banks. Similarly, we have already an example of transactions against gold earmarked abroad. Such transactions are carried out sporadically by the Bank of Java against its gold earmarked in the Netherlands Bank. The next task is to develop and to improve the procedure of this clearing in such a manner that the return to free gold circulation will become as economical as possible and that private gold arbitrage transactions will counteract successfully any excessive accumulation of foreign exchange reserves.

The entrance upon such a road necessitates more ample utilisation than hitherto of the gold deposits held abroad by the central banks. Transitory keeping of gold holdings abroad pending more favourable transportation rates should give place to permanent deposits. For this purpose it would be necessary to come to an arrangement between a fairly large group of banks under which the participating banks would mutually create deposits of gold and sell bullion certificates against such deposits.

Actual shipments of gold would then take place only between central banks in order to offset a disproportion between the state of deposits of one bank and the other. Private gold arbitrage transactions would be carried out without involving actual shipments, i.e., in an economical way. The movements of gold between central banks would be equally economical because the clearance of these movements to and fro would be much easier than at present.

The creation of permanent gold deposits abroad by a large group of banks would not necessarily require large and costly actual transmissions of gold at the time of their creation. *The individual bank could simply set aside out of its stock a certain part of gold and place it to the credit of other banks under earmark, and in reciprocity the other banks would do the same, i.e., they would set aside equal amounts of gold out of their stock and credit the first bank to the amount of the gold earmarked on their behalf.* In such a manner the gold holdings of each participating bank would not be subject to any change as to amount but would merely be divided into a part held in the vaults of the bank and a part earmarked abroad on its behalf by the other participating banks. Besides, each participating bank would possess gold earmarked on behalf of the other members of the group. The entire operation would be based on book entries. The stock of gold of each bank would thus be utilised to better advantage for the purpose of regulating the value of gold in the world.

Every central bank possesses a deeply hidden stratum of gold, which—in normal conditions—never appears on the surface and does not enter international circulation. In view of the unsatisfactory prospects of the future output of gold a mobilisation, as far as possible, of these layers deeply buried in the vaults of the banks should be attempted. A distribution by book entries of these layers among a considerable group of banks as *permanent reciprocal deposits* would constitute such a mobilisation in the general interest. Besides this would be a means of developing and improving gold clearing, thanks to which the same amount of gold could perform a greater task than under the present system.

The reaching of an understanding on these lines is neither easy nor is the time ripe for it. A system of permanent and reciprocal gold deposits must be based on credit, and credit is a matter of confidence. In this respect, apprehension of political disturbances plays and will play a big part. In order that the idea of reciprocal gold deposits should be carried out, a prerequisite would be the conclusion of a treaty assuring the immunity of deposits belonging to central banks in the event of war. This idea has been justly suggested by Professor Reisch, the President of the Austrian National Bank, who quotes, quite appropriately, as an example, international guaranties as regards the immunity of the property of the Red Cross.

It is difficult to foresee, to-day, whether and when we shall arrive at such a reform. But if gold is to remain the basis of currency and of the entire economic structure, sooner or later some solution must be found. And even if the world should some time discard gold, it is difficult not to agree with Professor Cassel who holds that international co-operation in the field of gold economy should be organised forthwith, because any future system not based on gold will be still more dependent upon such co-operation.

The earlier the spirit of such co-operation is born and simple and efficient methods are devised, the better. A free circulation of gold, based on co-operation of central banks and improved clearing methods is capable of solving the problem of gold economy for the present and the next generation.

Let us leave the care of the more distant future to the coming generations.

IX. THE CO-OPERATION OF CENTRAL BANKS

WHEN in the spring of 1925 England resumed gold payments expressions of criticism and apprehension were not lacking. All of us remember the Memorandum of the Federation of British Industries which uttered the warning that in the absence of a general return to the gold standard England's step might prove disastrous. The financial Press at that time also stressed the necessity of previously effecting the repatriation of European gold from America. It is the historical merit of Montagu Norman, Governor of the Bank of England, that in spite of these voices of warning he succeeded in imposing his opinion and carrying through the reform. It was an equally signal merit of Benjamin Strong, Governor of the Federal Reserve Bank of New-York, that he secured America's co-operation when this step of world-wide importance was taken.

Continental Europe finds itself at present in a similar position. Without a general return to gold the resumption of gold payments seems to be risky, premature and impossible. Unquestionably these apprehensions are partly justified. The situation calls for caution and for the largest possible co-operation.

It is not less true, however, that the lack of proper co-ordination between the gold bullion standard and the gold exchange standard is becoming more and more embarrassing.

The preceding chapters have made clear the weak features of the gold exchange standard and the superior advantage of free trade in gold over the policy of restrictions and hoarding of the yellow metal. It was shown also that the ratio of the aggregate reserves in gold and foreign exchange held by the more important European banks to the value of foreign trade is not lower at present than it was in 1913. Hence we may draw the conclusion that the return to free trade in gold can be regarded as a practical current problem. At first sight this conclusion may seem to be very radical. Return to free trade in gold may appear to have little chance of success by reason of the alleged risks involved.

The technical details of such a scheme are a matter for detailed discussion among experts, but the basic principle of the resumption of gold payments has already become a current topic of public discussion, for the reason that the formulæ and opinions put forth at the Genoa Conference have become partly out of date. It suffices to point out that the Genoa Conference recommended the application of the gold exchange standard on the largest possible scale, and at the same time insisted on such a regulation of credit as would ensure the stabilisation of prices. Experience has shown, however, that the gold exchange standard makes the stabilisation of prices more difficult.

Since the time of the Genoa Conference Europe's economic reconstruction has made rapid progress and the revision of opinions on the currency question becomes more and more necessary.

Discussion should centre especially about the following propositions:

1. The minimum reserves of central banks against notes and deposits combined should consist of gold to the exclusion of foreign exchange.
2. The amount of foreign exchange in fundamental reserves should not exceed the amount of gold.
3. The fundamental reserves should include only such foreign exchange deposits as are held in central banks which have resumed gold payments.
4. Foreign exchange deposits held in private banks as well as foreign cheques and bills should not be included either in the fundamental reserves or in the secondary reserves which consist of domestic bills.
5. The banks which do not sell gold should not purchase it on the free market in London, and should purchase it from other banks of issue only on the basis of a mutual agreement.
6. In order to organise clearing in gold the central banks should calculate and establish a system of gold points.
7. In order to facilitate such clearing the central banks should adopt the system of mutual gold de-

posits each crediting the other at the beginning with an equivalent amount of gold from their reserves.

8. Private gold arbitrage should be effected as far as possible without actual transports of gold, and for this purpose it would be advisable to introduce sales of gold by central banks out of their deposits abroad.

9. Only weak banks of issue should be permitted to use the unlimited gold exchange standard.

10. Banks of medium importance should use a limited gold exchange standard, passing from time to time to gold payments.

11. The Banks representing the markets which play the most important rôle in world trade, and those banks which possess gold reserves considerably greater than before the War, should use only the gold bullion standard, and in general should not employ foreign exchange as cover for their liabilities.

12. The internal circulation of gold coins is not to be recommended and should be admissible only in countries rich in gold in which the danger of hoarding gold does not exist.

The above principles may ensure a better co-ordination of the gold bullion standard with the gold exchange standard than exists at present. The danger arising from further and increasingly unsound accumulation of foreign exchange reserves would thus be mitigated, and it would be possible to reduce at least partially the accumulation which is at present burdening the international money market. Such reduction depends on the repatriation of gold from America, which will be more willing to send back the surplus of her gold if a general agreement as to policy exists among the European banks, than if the profound divergencies in the policies of those banks continue.

It is hardly possible to expect America to maintain a liberal policy if gold purchased by European banks is hoarded and withdrawn from free market. The outflow of gold from America has been so far relatively small, yet in spite of this fact the lowering of the discount rate towards the end of the summer of 1927 gave rise to sharp criticism on the part of the central States of the Union on the ground that New-York was carrying too far the policy of giving assistance to Europe.

What will be the situation if the outflow of gold becomes continuous and steadily increasing, and if gold withdrawn from America vanishes in the vaults of the banks which maintain the unlimited gold exchange standard?

A clearly defined European program in regard to gold, and the abandonment of the present system of hoarding it will in the long run add to America's readiness to return her surplus of gold. A large outflow of gold, of course, is bound to cause disturbances and sacrifices on the American market, but in the interest of all concerned America could endure them. On the other hand it would be difficult to prove that the present system of hoarding gold in Europe, and flooding the American market with an increasing amount of European foreign exchange reserves, is to the benefit of the world.

Beyond dispute the first psychological reaction to the idea of resumption of gold payments by a large group of banks is not favourable. But what of the fact that France, Germany, Italy, Spain and Japan at the beginning of 1927 possessed 2,423,4 mil. dollars of gold, or 26.3 per cent of the aggregate central banks reserves of the whole world, hoarded in the vaults of their banks and not accessible to the other banks? Is not an unfavourable psychological reaction more justified in this case than in the other?

The return to gold payments requires, as we have already stated, well planned co-operation among central banks. Until such co-operation is secured the return to gold payments in a fairly large number of markets will be only a theoretical suggestion with no hope of early attainment.

The present measure of co-operation, although it has done much good, is not sufficient. The central Banks, as we know, open accounts with each other; they enter into agreements with regard to transactions in gold and to interest on foreign exchange reserves; short-term stabilisation credits have been created and a moral co-operation in the issuing of long-term stabilisation loans exists; some banks have introduced international transfer accounts; and finally the personal relations between governors of central banks are becoming ever closer. All these are advantageous factors facilitating the relations between the banks, but they are not sufficient to permit the resumption of gold payments in a large number of countries, since such a resumption to be successful must be based on the statutory limitation of foreign exchange operations, on the stabilisation of gold points, on mutual gold deposits, and on gold sales out of gold deposits held abroad.

The insufficiency of the present co-operation is not due to the fact that the Conference of central banks recommended by the Genoa Conference has not thus far been convoked by the Bank of England. Unless preceded by preliminary labours such a Conference would bring more harm than good. Nor can we regard as decisive impediments the fact that Canada has no central bank, or the fact that the Statutes of the Bank of England are based on the principle of a rigid reserve requirement, while almost all other banks apply the principle of an elastic reserve. It would, of course, greatly facilitate the solution of the problem if the Bank of England should also adopt the system of a percentage reserve, availing itself of the opportunity arising in connection with the amalgamation of bank notes with Currency notes. But the greatest obstacle in the way to the higher form of co-operation is the fact that not all banks are secured in the same degree against political influences and that there is a lack of guarantee for the inviolability of gold and foreign exchange deposits in case of political crises.

Let us suppose that the central banks acting under a general agreement credit one another with equal amounts of gold and in this way create a system of mutual deposits in order to inaugurate gold sales from these deposits. As such sales proceed the amounts of these deposits will begin to change and their primary equality will disappear. One bank will hold another bank's deposit smaller than its own deposit held by the latter. The difficult question of confidence will then arise. The enforcement of the obligation to bring such deposits up to the original amount would cause continuous transports of gold and would deprive this system of any practical value. We must also reckon with the deeply rooted belief that gold is safest, and serves the interests of the given country best, when it is held in the vaults of the central bank.

As long as peace prevails and economic conditions are normal it will be possible to overcome such apprehensions. It is difficult to answer, however, what will happen in case of war, political revolution, a great economic crisis or like disturbances. The problem exists both as to gold deposits and as to accounts in foreign exchange held by central banks in other central banks, which accounts would become the rule, should we introduce the principle that fundamental reserves may include only foreign exchange deposits held in other central banks.

In order to attain a higher standard of co-operation the Statutes of central banks should above all be made uniform in basic principles. These principles are: the joint-stock company form, the independence of the bank management from political influences, the monopoly of note issue, the system of fundamental and secondary reserves with the end of facilitating international co-operation and preventing credit inflation in the country. As regards the other less important questions, local differences are admissible but in regard to the most basic principles the Statutes should be uniform, if co-operation is to develop without distrust. Even after such a uniformity of Statutes has been attained it would still be of primary importance to create *international guarantees for the maintenance of these general principles.* For the personal contact of governors of central banks and the gentlemen's agreements between them may prove insufficient.

Agreements between banks will in the long run be of practical value only if they are in some measure ratified by Convention of the interested Governments. Under such a Convention the Governments would undertake to respect the statutory principles agreed upon, and to guarantee the inviolability of the gold and foreign exchange deposits held in central banks. The central banks can solve the first part of the problem, i.e., they can bring into harmony the main principles of their Statutes. The solution of the second part of the problem is bound to be entrusted to a political body. The League of Nations, whose Financial Committee has already deserved much credit for its labours in the reconstruction of Europe, would be best suited for this purpose.

The rôle of the Financial Committee of the League of Nations as the intermediary in floating international stabilisation loans has not been popular everywhere. Even in England on the occasion of the loans for Bulgaria and Portugal the criticism was voiced that the Financial Committee was the exponent of a political body and was subject to political influences. There are many adherents also of the thesis that the organisation of stabilisation credits would be better effected by central banks than by the Committee of the League of Nations which is an organisation neither technically well qualified for this purpose, nor capable of acting with sufficient promptness. It would be much more difficult, however, to question such action of the Financial Committee as might aim at an *international Convention guaranteeing the basic statutory principles of central banks against Government interference and assuring the inviolability of the property of those banks in case of any disturbance,* as is now the case with respect to the property of the Red Cross.

It is illusory to suppose that it would be easy to bring about such a Convention. Already, however, schemes have been put forward and discussed which are much more difficult to realise. It has been proposed,[1] for instance, that in order to accelerate the

[1] H. Parker Willis in *Mitteilungen des Verbandes Oesterreichischer Banken & Bankiers,* 1926, Nos. 9, 10.

repatriation of gold to Europe America should open branches of her Federal Reserves Banks in Europe. In order to regulate the supply of gold the foundation of a "Trade Corporation" with a capital of one or two hundred million pounds sterling and the taking over of gold mines has been urged.[2] It has been prophesied also that in the end the central banks will have to participate in the ownership of gold mines.[3] Are not all these schemes more complicated than the proposed scheme for an international Convention which would merely guarantee the inviolability of the basic principles of the Statutes of central banks and the inviolability of their property abroad?

At the beginning of 1928 two books were published dealing with gold and with central banks and indorsed with prefaces of such great authorities as Governor Montagu Norman and Governor Strong. One of these books [4] draws attention to the fact that the use of foreign exchange instead of gold is "a temporary substitute, because in the long run, in a world of frequent political disturbance, balances abroad are not as good as gold in vault." The other admits [5] that "the holding by a Central Bank of assets abroad involves a degree of dependence on the stability and permanence of financial policy in a country whose

[2] Prof. Lehfeldt, *Controlling the Output of Gold.*

[3] Sir Josiah Stamp in *Prager Presse,* March 29th, 1925.

[4] W. R. Burgess, *The Reserve Banks and the Money Market,* p. 269.

[5] C. H. Kisch and W. A. Elkin, *Central Banks,* p. 122.

Government is beyond the Central Banks sphere of influence." In both the weakness of the gold exchange standard is stressed. This weakness, as we have seen above, is to be ascribed to deep lying causes. The gold exchange standard by its adverse influence on the international credit structure and on prices may in the long run become an obstacle to the progress of economic reconstruction. The co-operation of central banks, therefore, should aim at limiting the gold exchange standard instead of rendering it more widespread.

The limitation of the gold exchange standard is identical with the limitation of the issue of notes for the purchase of foreign exchange. This is possible, however, only at the price of increasing international transactions in gold. The co-operation of central banks if it strives to limit foreign exchange operations is bound to aim at increasing gold operations.

From the point of view of the status of the reserves of gold and foreign exchange an increase in gold operations is possible. The ratio of such reserves to the value of foreign trade in Europe—at least in the more important countries—is not at present lower than in 1913. Europe has, however, accustomed herself to excessive foreign exchange operations and to the hoarding of gold. As a result the co-operation of central banks, if it is to undertake the expansion of gold operations, will be obliged to look for new methods, which will make it possible gradually to cast off the habit of using foreign exchange operations as the chief means of settling foreign payments.

International clearing in gold may be the appropriate method for this purpose, provided the co-operation of central banks leads to the establishment of a new post-war system of gold points and of a system of mutual permanent gold deposits. In that case the arbitrage movement of gold from country to country could be effected by means of purchase and sale of gold out of foreign deposits thus reducing gold transports to a minimum. The actual transfer of gold from country to country would thus be limited almost exclusively to operations between central banks.

With such a modernisation of methods it would be easier to put into practice the postulate that the central banks, the ratio of whose reserves in gold and foreign exchange to the value of the foreign trade of the respective countries is but little lower than in 1913, should resume gold payments. *In practice this resumption would be possible in Europe only for a few countries besides England, Holland, Switzerland, Sweden, France and Norway.* The rest of the banks might continue to use the limited gold exchange standard and the weakest banks even to use the unlimited standard. On the other hand all banks would be linked together by uniform and clear opinions concerning the question of gold, instead of manifesting the present divergence of policy. The spirit of co-operation would be strengthened and there would be greater readiness to give mutual assistance in difficult situations due not to the mistakes of the bank management but to circumstances over which the management has no control. The return to liberalism in the matter of gold payments would restore and strengthen liberalism in international credit transactions.

By co-operation of central banks the necessary plan can be worked out. The execution of this plan would be facilitated by an international Convention with regard to the inviolability of the Statutes and of the foreign holdings of central banks. It is a difficult but by no means altogether hopeless task.

The time will come when all nations will understand that return to the freedom of gold movements is the key to general prosperity.

X. GOLD AND CENTRAL BANKS

The opinion is voiced more and more frequently that the historical rôle of gold as the basis of currencies is coming to an end. It would be a theoretical absurdity to assert that gold can never be displaced since there was a time when gold did not play the part of money. It is premature, however, to reach the conclusion that gold must inevitably at some future time be replaced by some other metal, or that mankind will devise a new form of money better than precious metals.

Should a paper currency, with scientifically regulated value, become a necessity in the future, mankind would first be obliged to work out higher and better forms of international co-operation. The co-operation of central banks for the regulation of the value of gold and for the improvement of methods of gold clearing may be the first stage on the road leading to this goal.

As long as central banks act separately it will become more and more difficult to maintain the historical rôle of gold, because the production of the mines will show a decrease and because the extent of the repatriation of gold from America cannot be estimated. Consequently international co-operation becomes of primary importance. The time has passed when the gold reserves possessed by central banks were their exclusive property and when the gold policy of one bank could be devoid of interest to the other banks. Nowadays the possession of gold is becoming more and more an *international public function* just as the possession of any form of property within a given country is coming increasingly to be a public function. For the moral, and often even the legal, responsibility for the manner of using one's private property is increasing from year to year.

The central banks by embarking on the policy of close co-operation with regard to gold will help to establish close relations between nations and will strengthen the spirit of solidarity of interests. The co-operation of central banks may, therefore, become a new and very important factor contributing towards the maintenance of peaceful relations throughout the world.

Thus the post-war shortage of gold may in the end turn out to be a greater blessing for the world than the pre-war abundance of gold.