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International Research in Problems of Gold and Prices

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THE gratitude each student of economics feels to the National Bureau of Economic Research finds fitting expression at this jubilee, and I wish to add my own thanks for all I have learned from the data and their interpretation in the National Bureau's valuable publications. My teacher in Upsala, the late Professor David Davidson, complained once that "an economist has not only to guess the *explanation* of what has happened but often unfortunately also to guess *what actually has happened*". If today we know so much more about the sequence of facts in the economic field it is largely due to the intelligently planned and painstakingly pursued work of the National Bureau of Economic Research.

It is concerned primarily with *national* data relating to economic conditions in the United States. This is all to the good in view of the position the United States holds today in world affairs. Is not nearly one-half of the world's output of industrial raw materials processed by American industries? And the national income of the United States accounts for practically 40 percent of the sum total of the national incomes of all the different countries in the world.

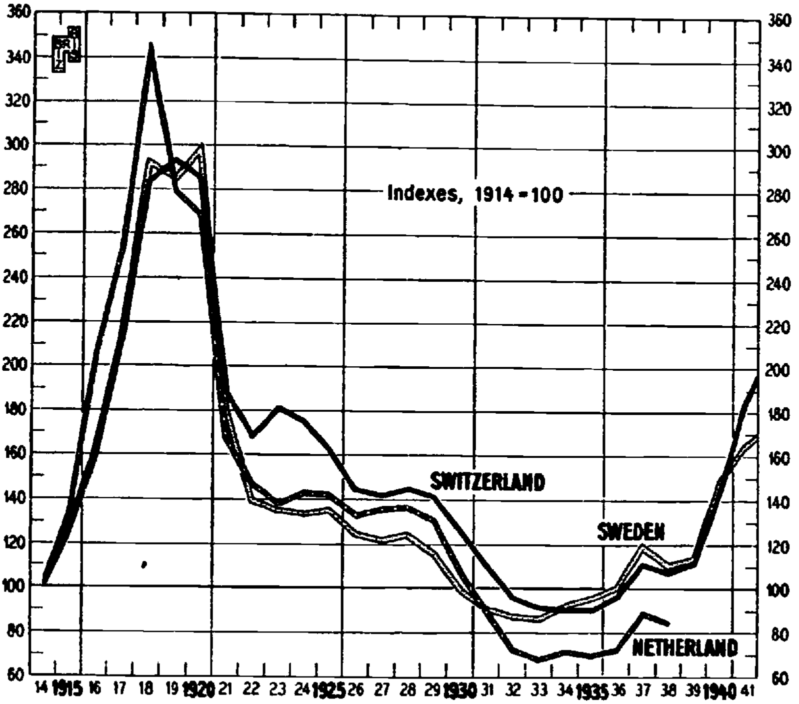
But in addition to national statistics, global figures are increasingly required to understand the economic and financial trends of our time. As regards the compilation and presentation of *international statistics* a tremendous step forward was achieved by the League of Nations. The Bank for International Settlements, with its relatively small staff, has itself compiled original series only in some particular fields, e.g., international short-term indebtedness; amounts allotted and disposed of in clearing and similar accounts; and the composition of note circulations. The work of the Bank's Economic and Monetary Department has been rather to analyze and interpret data already published by other offices. There is, in fact, a tremendous amount of published material but often not enough effort directed toward eliciting what it all signifies. We would do well to remember the dictum of the great Justice Oliver Wendell Holmes: "the significance of facts is more important than the facts themselves; and if we know the significance we may even forget the facts".

Much has been said at this meeting about the duty of economists toward policy makers. While I heartily approve of the new tendency of American economists to take a guiding hand in public affairs, I wish to give it as my opinion that in a democracy economists have a primary duty toward the public. In my own country, Sweden, it has come to be recognized that the public as such is entitled to know what leading economists in the land think about the economic and financial problems of the day. Economists may not always find it easy or opportune to state their opinion, but surely they would fail in their task if they were to hold back and make no attempt to enlighten and influence public thinking.

In studying price problems, I think that international influences should be examined even more closely than they have in the past. In peacetime, as long as exchange rates remain stable, price levels tend, as we know, to move in step, but the two world wars have taught us that even in wartime strong international influences make themselves felt. As may be seen from Chart I, in The Netherlands, Sweden, and Switzerland the levels of wholesale prices during 1914-18 and the postwar depression moved very much in the same way, indicating that international influences were also factors of great importance. It is curious to think back on the discussions that took place in these countries at the time: in each the character of government financing or a rise in wages and other costs was held to have been the factor primarily responsible for the price movements, while little attention was paid to an upward or downward pull from abroad.

In the smaller countries of Europe the relationship with foreign markets is necessarily so intimate that the international aspect cannot long be overlooked.

Chart 1
Wholesale Prices in
The Netherlands, Sweden, and Switzerland



As regards the United States, foreign observers cannot help feeling that often too little attention is paid to the international influence on the domestic price level. Such an influence makes itself felt not only through the volume of actual exports and imports but also through the effect the mere possibility of dealings with foreign producers and traders has on domestic price quotations of goods not usually bought or sold abroad. In 1936-37 costs of production in the United States rose sharply, as a result mainly of a sudden 15 percent rise in wage rates; but a corresponding rise in the American price level was held back, as I see it, by the resistance offered by world prices, then determined chiefly by conditions within the sterling area. The resulting disequilibrium in the cost and price structure furnished, in my opinion, the main explanation of the setback in business that occurred in the course of 1937. In this connection, may I make two observations:

1) I strongly concur with the view often expressed by Walter Stewart: that economists should examine more fully than they have recently been in the habit of doing the causes and phases of particular economic occurrences, such as the boom and the bust of 1936-37. Just as doctors gain their knowledge from a close examination of particular cases, so a detailed analysis of economic events ought to bring a most useful addition to our understanding of the factors making for economic change.
2) Economists who reject the view that the prolonged stagnation in the 'thirties was due primarily to a lack of investment opportunities will be really convincing only when they are able to put forward a coherent alternative explanation of the economic troubles that beset the world in that remarkable decade.

Our generation, at any rate, cannot help being aware of the historical influence exerted by *the great depression of 1930-33.*

One important consequence of the depressed conditions was a change in governments almost everywhere: a strengthening of the conservative influence in Great Britain; a move to the left in the United States with the election of Franklin Delano Roosevelt as President; and to totalitarianism in Germany when Hitler became Reich Chancellor at the end of January 1933.

But almost irrespective of the shift in party politics there came a change in the general outlook, usually called 'the end of laissez faire'. People suddenly ceased to believe that in the economic field things would go well if left to themselves. A difference of opinion still prevailed as to the best form of, and the limits to be observed in, government intervention, but—to give only one example—it was soon taken for granted that if the gold standard was to be retained at all, there would have to be a strong element of management in it.

Concerning these consequences of the depression there is, I think, general agreement, but concerning the *causes* of the depression there is still much uncertainty—even more than actual disagreement. In part, of course, the depression may be regarded as the downward turn of an ordinary business cycle, undoubtedly intensified by coincidence with an agricultural depression. But what was the exact influence of political factors, including the reparation tangle? And how did unwise international lending complicate the situation? Could any other credit policy have helped matters? And did a shortage of gold actually contribute to the fall in prices? Note that the fall in prices was the root trouble from which most of the other difficulties arose, being chiefly responsible for the monetary convulsions from 1931 onward and the paralysis of so much of the international credit system.

If we proceed to examine to what extent the *gold scarcity* contributed to the fall in prices, we soon find that national statistics do not suffice; we have to throw the net much wider and look at monetary developments in all the gold-standard countries and the movements of gold between countries. But even in selecting and arranging our data we are embarrassed by the fact that no *communis opinio doctorum* still obtains as to the influence of gold on the trend of prices. Here it is not possible for me to examine the fundamental problem of the relation between gold and prices (for this would necessitate a rather prolonged, partly mathematical analysis) but it may be of interest to make some observations of a rather general character.

Knut Wicksell distinguished clearly between three *monetary* influences on prices (while increasingly admitting, as his life went on, other than purely monetary factors). There was for him a difference in the influence exerted by: (a) a budget deficit covered by issues of newly created money; (b) the current gold production leading to a direct increase in monetary purchasing power to the extent that the new gold is acquired by the central banks; and (c) the credit policy of the central bank and the commercial banking system (e.g., the influence exerted by a too high or too low rate of interest).

Wicksell held that newly produced gold (so far as it became available for monetary purposes) led to a direct increase in the active volume of monetary purchasing power and that this increase was sufficiently strong to explain, for instance, the rise in prices from 1896 to 1914. Originally, he had thought that the new gold acted on prices *via* the credit system, i.e., through its effect on credit conditions; but, as he explained so clearly in the introduction to his *Lectures* (first published in Swedish in 1906) and as noted by Professor Charles Rist in the *Histoire des doctrines relatives au crédit et à la monnaie depuis John Law jusqu'à nos jours* (Paris, 1938; see pp. 299-306), he changed his mind on this point, adopting the view that the influence exerted by gold was essentially of a direct nature in that the new monetary demand which came into the hands of gold producers as the central banks acquired the new gold was increased in a repetitive fashion (or, as we should now put it, with a kind of multiplier effect). Unfortunately—and for reasons I cannot understand—the introduction to the *Lectures* was not included in the English translation published in 1935.

It may be mentioned in passing that Keynes did not distinguish between the different influences in the same way as Wicksell (see his *General Theory*, p. 200). According to Keynes, the different monetary developments can all be reduced to the "case where the new money can only be issued in the first instance by a relaxation of the conditions of credit by the banking system". In my opinion, Wicksell's approach is more suited to facilitate an understanding of different monetary chains of causation (being also preferable from a didactic point of view according to the old formula: *Qui bene distinguit bene docet*).

If it is correct that the current gold production and its distribution are of preponderant importance, then the influence of the stocks of accumulated gold must be relegated to a secondary place as compared with the *movements of gold.* I should like to point out in this connection that even those who attach primary importance to the influence of the actual gold reserves on the conditions of credit (as affected, inter alia, by cover percentages and similar provisions) usually proceed, when they have to explain the influence of gold, to give an example showing how a gold movement from one country to another exercises a restrictive effect on the credit policy in the market losing gold and has the opposite effect in the market gaining gold, which all helps to restore a monetary equilibrium, so that "blessed are those who lose and blessed are those who gain the gold"—the essence of the old gold standard, according to a Scotch friend of mine. The choice of the examples shows clearly that also according to this theory great importance is attached to the movements of gold. Indeed, irrespective of the basic theory adopted, the problem would seem to become in practice a question of determining *to what extent a flow of gold helps to sustain monetary purchasing power in the different countries;* and in this connection it must be remembered that as a rule the main gold movements are constituted by the distribution of newly produced gold among the different countries.

The *need for increased monetary purchasing power* usually arises from the current increase in the national product as revealed by national income. I have tried to calculate the aggregate total of, and the increase in, the national income of all the gold standard countries for 1900, 1913, and 1929, assuming a 2.8 percent rate of increase for 1900 and 1913; i.e., slightly less than the famous 3 percent calculated by Professor Cassel; for 1926-29 the rate of increase seems to have been about 4 percent. (Note, however, that the latter percentage refers to what were essentially boom years and therefore does not represent an average for a prolonged period of booms and depressions.)

The average annual increase in monetary gold stocks, representing newly produced gold available for monetary purposes, was at the rate of $160 million around 1900 and $250 million in 1913; and it may be put at $230 million in 1929.

	AGGREGATE INCOME OF ALL GOLD STANDARD COUNTRIES	RATE OF INCREASE OF NATIONAL INCOME IN STABLE PRICES	MONEY INCREASE IN NATIONAL INCOME
	Millions of U. S. dollars	Percentages	Millions of U. S. dollars
1900	58,000	2.8	1,600
1913	95,000	2.8	2,700
1929	200,000	4.0	8,000

If we concentrate our attention on the two years 1913 and 1929, we find that in the former year the relation between the amount of gold available for monetary purposes and the increase in the national income was as 1 to 11, while in the latter year it was as 1 to 29. The change in the relation was due to three distinct causes: (a) a slight fall in the amount of gold available for monetary purposes; (b) a higher rate of growth in the national income in 1929 than in 1913 (4 percent instead of 2.8); and (c) a higher price level in 1929 than in 1913, wholesale prices in 1929 being 40 percent and the cost of living at least 60 percent above the 1913 level.

In dollar value the national income in 1929 was about twice as high as in 1913; of the increase, about 30 percent seems to have been due to real growth in output and the rest to a rise in prices. The price rise was thus a very important factor but, curiously enough, Cassel left it out of account in his exposé on the scarcity of gold in that he compared the rate of increase in the quantitative output of the metal simply with the rate of increase in the physical output of the most important commodities. But the addition required in the volume of monetary purchasing power must be related to the growth *in value* of the social product.

From the above figures it is plain that *the current gold production contributed less to sustaining prices in 1929 than in 1913.* But this is not the whole story. Largely because of the rate at which the French franc was stabilized in 1926-28, France took more than her proportionate share of the world's annual gold production in 1927-30. Indeed, countries on the continent of Europe which had—and this was generally the case—to reconstitute their monetary reserves, absorbed together more than the entire current output of gold (notwithstanding the widespread application of the gold exchange standard). This led, of course, to a *lop-sided distribution of the newly produced gold.* Some important countries obtained no new gold on balance. For example, the monetary gold stock of the United States was, in 1934, slightly below what it was in 1924. This meant that in the crucial years 1924-34 the American economy received no real help from the arrival of new gold in sustaining its price level. It is logical—and not paradoxical—to deduce from these facts that the United States, despite its accumulated stocks, felt the impact of the shortage of gold. The fall in prices began outside Europe and, so far as the shortage of gold may be said to have been a contributing factor, it must have affected especially the price levels in certain large extra-European markets.

During wars prices rise. For example, Chart 2, depicting price movements in the United States, since 1800, shows first a great rise during the Napoleonic Wars, then during the Civil War and, then again, during the first World War. After the Napoleonic Wars prices went back to a level even below that obtaining before the rise started; after the Civil War also the price level soon returned to and even went below its prewar level. After the first World War an attempt was made from 1923 onward to stabilize average prices at a level that in terms of wholesale prices was some 40 percent and in terms of the cost of living fully 60 percent above the prewar. The remarkable stability of the price level up to 1929 aroused hopes that at last the problem of how to maintain stable prices had been solved. But by 1932 average prices had fallen below the 1913 level. Now another world war has raised prices far above the 1939 level but not as yet in terms of gold much above the average for 1914. We must watch carefully the signs of the times to ensure that we do not again commit the mistake of trying to stabilize in gold at an unsuitable level.

It may, however, be asked whether the monetary authorities in the United States should not have so arranged their credit policy around 1929 as to have brought about a sufficient *credit expansion* to meet the monetary requirements of a rising production? They were indeed on the horns of a dilemma:

a) To provide more monetary purchasing power via the credit system the rates of interest had to be low and credit otherwise freely supplied; but

b) to prevent the dangerous boom that had arisen in the market for capital assets (share quotations becoming higher and higher) from running to excess (which it unfortunately did) rates of interest had to be raised.

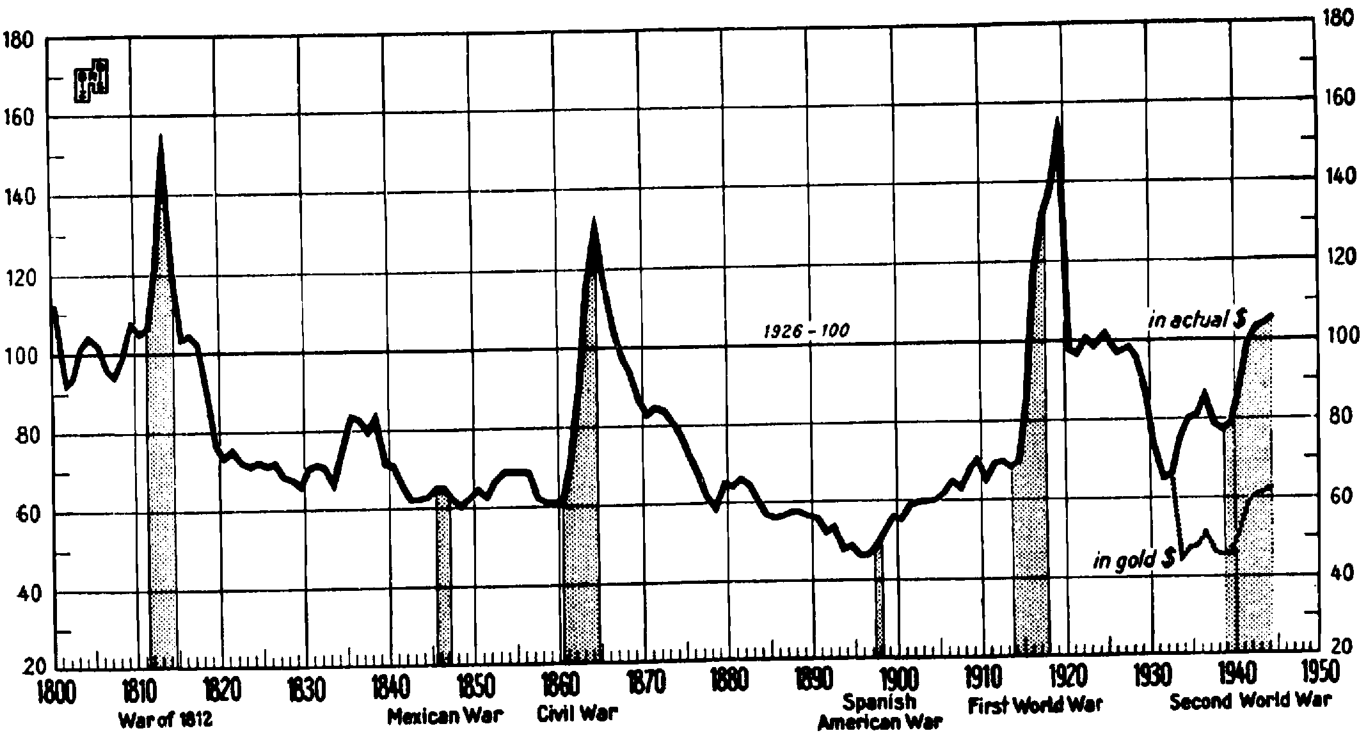
It sometimes seems to be assumed that there is some perfect credit policy to be applied on every occasion. That is not the case; on the contrary, credit policy shares with other policies the disadvantage of often being a choice between evils.

In this respect a theorist has least of all the right to look down his nose at the practical people. Some of the essential problems have not yet been solved even theoretically. Let us return to the one just indicated: to increase the volume of purchasing power through the granting of credit it is necessary that more should be lent than the savings out of already existing income, for lending of such savings would merely transfer existing purchasing power, not increase the total amount. David Davidson pointed this out many years ago, as was mentioned by Brinley Thomas and F. A. Hayek and also by Gottfried Haberler in *Prosperity and Depression* (1939 ed., p. 35), from which the following extract is quoted: "In a progressive economy, where the volume of produc-

Chart 2

United States: Wholesale Prices Since 1800

Yearly averages 1926 = 100



tion and transactions rises, the flow of money must be increased in order to keep the price level stable. Therefore, the rate of interest must be kept at a level low enough to induce a net inflow of money into circulation. The rate which stabilizes the price level is below the rate at which the demand for loaned capital just equals the supply of savings."

Haberler says that allowance must be made for this discrepancy, but does not further investigate the consequences. It would, however, seem as if the maintenance of so low a rate might easily act as a stimulus to a dangerous boom—a circumstance that might be of great importance in an analysis of booms and depressions.

Alvin Hansen mentions the same problem in his essay on Stability and Expansion, included in *Financing American Prosperity, A Symposium of Economists,* published in New York in 1945. In a note on page 225 he writes: "investment each year must in fact exceed the savings made out of 'disposable' income in Robertson's sense, in order to make possible a rise in income commensurate with rising productivity. This excess of investment would normally be financed by an increase in bank credit, which in a growing society must occur in order to provide sufficient circulation media to transact the ever-growing volume of trade at stable prices and in addition to provide sufficient money (currency and demand deposits) to ensure the necessary degree of liquidity required to maintain a low rate of interest."

Several thoughtful economists have thus recognized the problem, without, however, as it would seem, always realizing all its important implications. Here is, indeed, a problem largely international in character, which for its solution requires much further research, factual and theoretical. But perhaps it is too much to ask the institution we honor today to become also an *International* Bureau of Economic Research.