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PART IV

The Experiment As A Whole

CHAPTER 21

The Experiment of Operating a Decentralized World Credit Structure in an Unbalanced World Economy

In the history of the international gold standard 1928–29 is a landmark because it was the only year during which that standard was almost universally in effect in countries not traditionally attached to silver. In Chapter 13 its claims to be considered not only a landmark, but also a major turning point, were enumerated, and in the elaborate analysis subsequently given of the position and interrelations of individual currencies from 1925 to 1929 these claims have been substantiated. A vantage point has now been reached from which to survey the road traveled by the international gold standard after 1914, free from the burden of detail necessary for a correct understanding of the steps along the way. A broad retrospective view of the progress of the institution as a whole along this road has led to our condensing the attributes of the period 1925–31 into the single phrase: the Experiment of Operating a Decentralized World Credit Structure in an Unbalanced World Economy. This phrase suggests the two general comparisons by means of which the fundamental historical evolution of the gold standard after 1914 can best be pictured: one, between the completed structure of 1928–29 and the pre-war system; the other, between the operation of the gold standard in 1925–29 and in the war years. The first comparison emphasizes the essential dissimilarities in two systems superficially similar, the second emphasizes the essential similarities of two environments superficially dissimilar.

Certain Salient Features of the Pre-War System, Recapitulation

The most striking single feature of the pre-war gold standard system was the highly integrated world banking structure centered in London and operating on the basis of the strong international creditor position of Great Britain. This system of banking provided for an efficient and rational distribution of long and short term credit and of gold on a world-wide scale. It provided a common medium of payment for the financing of world trade, just as a national banking system provides a domestic currency for the financing of domestic trade. It was also the center of a system of international clearance which resulted in the same sort of banking economies that intra- and interbank clearance provides in any banking system.

The world's foreign exchange markets were interconnected through London, and in many instances remittance from one market to another was habitually made in sterling, in preference to direct remittance. London was the world center for the clearance of foreign exchange transactions, though smaller patterns centered directly around Paris, Berlin, and New York were woven into the main design of the picture. In this pre-war system of foreign exchange markets all countries had a substantial interest in keeping their particular currencies as stable as possible in terms of sterling, and their success in doing so contributed to the stability of their currencies in terms of one another.

One reason for this interest in keeping the London exchange stable was that the world-wide price making forces of primary raw materials were brought to a focus in world markets in London and Liverpool. British consumer demand was a dominant influence in the formation of many of these prices, of which the price of wool is a good example. In addition, the British view of the prospects of primary commodities had a great psychological influence in other countries, and throughout the continent buyers and sellers followed the British traders' lead. The world prices established in the British markets were a common element in the price structures of many countries. Their fluctuations in response to world-wide supply and demand forces directly influenced the incomes of large groups of producers in many countries, and consequently the demand for many products not traded in internationally. They affected domestic costs of production. The international influence of the London or Liverpool price of many important commodities was therefore a factor tending to prevent substantial divergence in the movements of general prices of countries adhering to the international gold standard.

Before the war balances of payments changed rather slowly in their composition as countries passed through successive stages of economic development. The character of international trade as a whole was slowly changing as the world-wide spread of industrialization altered, in unequal degree and at varying rates, the economic life of many important countries. On the whole, however, the strains imposed by these dynamic forces of economic growth were adequately met by short and long term advances provided by a highly centralized world banking system. Great Britain was by no means the only international lender, and British international bankers, like other bankers, were dependent on their depositors.[1] Yet this system was London-centered. Many of the international transactions of other financial centers, such as the large scale security arbitrage transactions of the French banks, were passed through London. Paris, Amsterdam, and Berlin were vital, but subordinate parts of a system of which London was the leader. As a source of short term credit accommodation London was preeminent, and large as were the long term capital exports of France, especially to the rest of

[1] Mr. Smit has pointed out that there were times before the World War, e.g., immediately after the Boer War, when it was difficult to transfer even small sums from London.

Europe, they were dwarfed by the far greater and more diversified export of capital from England. British loans financed the development of many parts of the world, guided the application of natural resources, and made it possible for the large scale international exchange of goods to be spread over long periods. The whole complex of relationships created by the making, repayment, and renewal of long term loans provided a further powerful incentive toward the maintenance of stable exchange rates on London by the outside world, and, in ways we have described, helped to maintain that stability. Stability of the exchanges, in turn, promoted new foreign lending, and there was here, as in so many aspects of pre-war gold standard history, an interaction of cause and effect.

In the pre-war gold standard system London was the center for the distribution of most of the world's newly mined gold and of the world's trade in gold. The dynamic influence of the financing of trade and the distribution of new capital from London resulted in an international distribution of gold that was responsive to both the short term requirements of exchange stability and the long run needs of banking and currency systems. The long term distribution of gold was greatly influenced by the process of foreign long term lending which helped the more rapidly developing countries to meet their expanding credit requirements without frequent and violent checks due to the inadequacy of gold reserves, and without upsetting the conditions required for stability of exchange rates. This system of gold distribution was able to adapt itself to certain peculiarities in the banking organization and practice of individual countries, in particular to the steady absorption of gold by the Bank of France, but was subject to severe dislocations from such unexpected institutional changes as those which brought America suddenly into the gold market in 1906. At times of severe cyclical depression it worked to the disadvantage of debtor countries and was a cause of world-wide disturbance. But such events were not the characteristic staple of pre-war experience as they came to be after the war. Consequently, the passage of large supplies of new gold through the London bullion market was safeguard enough to allow the Bank of England to conduct its operations with a relatively small gold reserve. In such an environment the Bank was able to induce by its discount policy gold movements to and from England of the corrective character long the center of gold standard analysis, without greatly interfering either with seasonal flows or the fundamentally important movements of the metal that may be described as residual.

Our analysis has convinced us that the most important factors of adjustment in this highly integrated pre-war system of international finance were movements of credit, both long and short term. We have assigned a minor role to gold as *an equilibrating factor* in international trade. But as a confidence-inspiring factor and a limiting factor on bank credit expansion the world over, it was, of course, of first importance. All the conditions summarized above, combined with the all important element of confidence supplied by the legal guarantees of the convertibility of balances in London into gold, provided the basis for a highly sensitive movement in the holdings by different countries of an international bill portfolio, and the confident movement of bank balances and of securities between London and other markets.

These movements of gold and capital bound the world money markets together. They provided a machinery for the equalization of interest rates, not of course sufficient to eliminate the permanent differences resulting from the fundamental relations between the supply and demand for capital in different parts of the world, but sufficient to bind the money markets into a world system sensitive in all its parts to changes taking place in the center and in other parts.[2]

[2] This interdependence of money markets has been analyzed in a statistical treatment of gold flows, exchange rates, and differential interest rates between

This pre-war system gave to the world for many years an essentially stable system of exchange rates. The highly elaborate techniques employed conformed to the fundamental requirements of efficient banking. But their effectiveness in turn rested on two great foundation stones. The first was the economic position of Great Britain as a great importer of raw materials and a great exporter of manufactured goods, capable of vast internal capital accumulation and induced to employ these savings abroad by the relatively low return to capital at home. Even before the war this first foundation stone was exposed to influences tending to undermine it. The rapid industrialization of Germany had already subjected the gold standard system to a considerable strain, and German competition runs like a leitmotif through the testimony of those we have consulted concerning the operation of the London financial system during the decades immediately preceding the war. It is probable that, had there been no war, some of the characteristic features of the gold standard as it existed in 1914 would have had to be modified. In fact, the growing coordination in the seasonal influences in the Berlin money market with those in London, while at the same time cyclical influences in the two markets were showing more and more independent characteristics, is evidence of the development of a new situation.[3] The second foundation stone was the development, empirically, under the leadership of the Bank of England, of a stable and conservative type of banking management in England.[4] In an international financial system with a single center the first principle of international financial stability is stable credit conditions at the center, and this requirement, on the whole, was splendidly met by England before the war.

London, Paris, Berlin, and New York prepared in connection with these studies by A. G. Silverman.

[3] These relationships are shown statistically in Mr. Silverman's study.

[4] Mr. Smit's pre-war analysis deals with this development statistically and draws out its international implications.

The Completed Gold Standard Facade of 1928–1929 compared with the Pre-War System

The devastating effects of the World War and its aftermath upon the very foundations of pre-war international economic and financial relationships have been brought out with cumulative effect by our detailed analysis of the effort first to maintain and then to return to the gold standard from 1914 to 1928. In place of integration and a harmonious relation among the complex elements of the world's economic and financial structure, these fifteen years present a picture of conflict and lack of balance alleviated by a series of powerful, but improvised and opportunistic, cooperative expedients to hold the system together. From 1914 to 1918 the effort to maintain the outward semblance of the gold standard, and from 1924 to 1928 the triumphant restoration of its external forms, served to obscure in some degree this fundamental change. But between 1919 and 1924 the phenomena we have described by the phrase America Drags Her Golden Anchor raised questions about the true significance of gold in the modern world that can not be evaded, and demonstrated the inadequacy of traditional ways of thinking and feeling about gold as guides to policy in times of fundamental change. These years provided a window through which the real nature of the problems inherited from the war, and those carried forward into the period of Experimentation, could be seen clearly. The true comparison between the completed gold standard facade and the pre-war international gold standard system can be made only in the light of the prospect seen through the 'window' of the Restoration period.

The pre-war financial and economic system was the product of growth and slow evolution. The war had violently disturbed this system, and it was the practical problem of the post-war generation to find a way of piecing it together. The effort to do so was in part a failure because the post-war generation was not successful in distinguishing between the form and the substance of a great international institution —the gold standard—which had served it well in the past.

In the first place, the war left behind it varying degrees of monetary inflation, and for the first time in the history of the international gold standard some method of establishing a new system of exchange rates between all the most important countries of the world had to be devised. The solution of this problem—the stabilization problem proper—was arrived at by the sovereign choice of independent powers rather than by international agreement, and introduced into a situation already sufficiently complicated a new set of difficulties known as under- and overvaluations of currencies. These difficulties were carried forward into the period of Experimentation, but by 1928–29, under- and overvaluation of the major currencies, as an economic factor directly affecting trade, had receded somewhat into the background because of a partial adjustment of price structures. The choice of new pars of exchange left a serious heritage, chiefly because it contributed during the first years of the return to gold to the weakness of sterling and the strength of the franc and therefore was partly responsible for the course of banking policy in England and France.

The actual choice of stabilization rates did not, however, strike at the inner springs of stability as they existed before the war. These inner springs of stability were found in the combination of good and highly centralized international banking and a fundamentally harmonious relation between the financial and commodity elements in the international balance of payments of countries adhering to the gold standard. The war in a few years did the work of decades of normal development in changing these financial and trade relationships. It left a series of balance of payments situations that could never have arisen under the pre-war gold standard system. It laid the foundations for a new relation between the agricultural and extractive industries and manufacturing industries all over the world. By the creation of new frontiers it produced the strongest motives for overproduction. At the same time it created an abnormal demand for the goods of creditor countries and accentuated the basic anomaly of creditor countries with commodity export surpluses and debtor countries with commodity import surpluses. The war weakened the creditor position of Great Britain and brought to an end the era of her industrial domination begun a century before. It left the United States a great creditor power, and as a result of reparations, made Germany the world's greatest debtor.

These changes persisted throughout Restoration and on into Experimentation. They did strike at the roots of the pre-war system. In the gold standard world of 1928–29 London was subject to new and powerful competition. The war had raised up in New York a competing money market operated on the basis of a newly created and very powerful international creditor position and ambitious to share with London the role of the world's banker, if not to replace it as the greatest international money market. Other markets, such as Amsterdam, cherished similar ambitions on a smaller scale during the reconstruction period. The process of returning to gold, moreover, as it actually worked out, gave France a temporary pull over the exchanges which she had never previously exercised, even though before the war she was a major creditor power. The essential difference between the international gold standard of 1928–29 and that of 1914 was that when the world returned to gold after the war it built its international financial system around a *nucleus* and not around a single center. A temporary union of discordant elements passed under the general designation of the gold standard.

The British banking system emerged from the war with a remarkable record of achievement, and remained true to many of its fundamental traditions. The joint stock banks returned, in the main, to their pre-war practices in the distribution of their assets and gradually reestablished a ratio system that allowed control by the Bank of England of the credit base to be felt throughout the credit superstructure. The Bank of England, however, was obliged to base its policy on new criteria of action and to supplement on an ever increasing scale its old techniques of market control by new and more powerful devices. The highly specialized mechanism of the London money market was technically less efficient than it had been. In particular, the amount of sterling bills growing out of the financing of international trade had declined and British treasury bills had taken their place in the short term market. This change had the effect of narrowing the market for sterling and making the exchanges less responsive to the influence of Bank rate. The sterling bill did not provide a world medium for financing world trade, and London did not perform the function of an international clearing house in quite the same way as before the war.

There were other changes in the London market. Balances of foreigners held in London before the war were kept there for genuine business reasons—because they were needed to meet recurring obligations. They were, in effect, the world's average balances in the world's active commercial bank. London exercised what Mr. Smit has called 'a deposit-compelling power' far greater than that of any other money market in the world. The post-war period witnessed a dangerous growth of unfaithful money and added to the world's problems that of unfaithful securities. The international loan fund had always been mobile, but that mobility was not formless—it had a focal point. After the war the movement of balances and securities from one market to another was both large and erratic, and this had a profound influence upon the effectiveness and the practice of London as an international financial center.

The world's foreign exchange markets were still characterized after the war by the general triangular pattern of prewar days. London was still the great market for dollars for all continental and Empire countries and for Japan. Paris was still the great foreign exchange trading market for the continent, and New York for the Canadian exchange. But London had become more active as a trading market in all exchanges. Sterling had not lost its character as a great international currency, but it had lost its unchallenged primacy. London was no longer in the same degree the place where the debits and credits resulting from foreign exchange trading in other centers were offset by transfers on the books of banks. The motives that had led all countries to endeavor to preserve stability of their rates in terms of sterling, though still powerful enough to create a group of so-called sterling countries persisting throughout the period of war and reconstruction, were neither so universal nor so powerful as before. Under the new conditions the continued use of sterling as the medium of remittance between other countries became a source of strain and disturbance in the world's exchanges rather than the reflection of the stabilizing activity of the world's centralized international banking machinery. Because of London's new relation to international clearance, and because of the weakened position of British goods in the world's export markets, sterling was on the defensive in the gold standard world of 1928–29, and Great Britain was therefore obliged to put a guard upon her long term lending and relate it more closely to the immediate requirements of her hard pressed export industry than in the days of her predominance. The writ of London no longer ran throughout the world.

When Great Britain returned to gold she was followed by a group of sterling countries which remained as distinctly a group of sterling countries after the gold standard was reestablished as they were before. The significance of this lies not so much in the fact that the relations of these countries to England and to the pound were such as to give sterling a predominant influence over them in comparison with the influence of the franc or the dollar as in the fact that similar relationships to the pound that had previously existed over a much wider area before the war were no longer present. We have in these studies sometimes used the expression that before the war the international gold standard was in effect a sterling exchange standard. The existence of a separately definable sterling area after the war is a measure of the degree to which this generalization was no longer true.

The whole relation of the United States to other members of the international gold standard system as it existed in 1928 was that of a country whose policy was dominated by a series of domestic problems that made it difficult for her to exercise her great power over other currencies without sacrificing at times the general international interest, and made it difficult, conversely, for her to adapt her policies to the immediate international situation, without danger to her own internal position. Some of the most difficult aspects of this dilemma were the direct outgrowth of the experience of the United States as the only great power that adhered to the forms of the international gold standard from 1919 to 1924. The ultimate domestic and international effects of the great effort of international cooperation, which we have described as the Critical Decisions of 1927, can be fully understood only in the light of the preceding period of delayed gold inflation in the United States.

The essential elements, moreover, that contribute to the capacity of any money market to be an international financial center were developed in very unequal degree in New York. The world markets in basic raw materials continued to be, in the main, centered in London and Liverpool, while New York was growing rapidly in importance as a market for international transactions in securities. The international function of lending was far more largely transferred to New York than was the international function of clearance. The institutional equipment and the money market techniques devised to take care of the new responsibilities were in many respects hastily improvised. Finally New York, as an international financial center, faced peculiarly difficult problems, because

America continued to be a magnet for capital from abroad, and because New York was the domestic money market for a continent embracing within a single political jurisdiction areas of extremely diverse economic characteristics.

Great Britain and the United States together were the active nucleus that replaced the single center of pre-war days, but the position and policy of France vitally affected their mutual as well as their joint relations to the outlying countries. France, indeed, was a sort of powerful silent partner in the central nucleus of the post-war international gold standard system. She returned to gold under circumstances that gave her a power over that system disproportionate to her economic strength. Her bitter experience in the loss of almost all her pre-war foreign investments led her to renounce, for the time being, her traditional role as a long term international lender, and either to allow currently accumulating credits in her balance of payments to remain in short term foreign employment or to bring them home in gold. A situation therefore arose in which the more faithfully French policy adhered to the technical procedures of the orthodox gold standard the more difficult it became for the creditor powers as a group to fulfil the basic role that Great Britain fulfilled in the uni-centric system of pre-war days. Conversely, the more consistently France refrained from bringing home her foreign assets, the more competitive pressure arose between the two central markets for the profitable employment of her balances.

When one after another the countries of the world that may be described as outlying or debtor countries, as well as the smaller European creditor countries, returned to the gold standard, they related themselves to a nucleus of center countries containing forces of internal disruption, while at the same time the solution of their own economic problems depended largely upon the harmonious joint action of these center countries. As long as the stream of American and British long and short term loans continued to flow into debtor countries, and as long as through this process the international credits of France currently accumulating in the two central markets were reinvested in debtor countries, there was in effect common action by the nucleus. As a result, the great illusion that the world had regained stability by returning to the safe harbor of gold remained intact. America experienced no difficulty in maintaining her export trade and her tariff policy; Germany was able to regain working capital, import essential raw materials and make large payments on reparation account; France was able to maintain internal stability, restore her government credit, finance the rebuilding of the devastated areas, and expand her exports, and England was given respite during which she might readjust her industrial structure to the new competitive situation and resume her position as the world's banker.

Under these circumstances a new type of interdependence grew up among money markets. The kind of cooperation and competition of money markets characteristic of pre-war days, which worked out its results through gold movements and movements of short term credit and securities responding to the currents of trade and to the movement of interest rates, still continued in a measure to bind the money markets of the world into a system. But these influences were often subordinated to other more violent forces. For example, from 1925 to the middle of 1928 there was a distinct tendency toward an international equalization of interest rates through the international movement of capital, but after the middle of 1928 this tendency ended because of the violent movements of funds associated with the American speculation.[5] This was but a striking example of the manner in which the extraordinary mobility of the international loan fund and its increased size after the war made the pre-war type of international money market adjustment recurrently inadequate. Following the Macmillan Committee we have called it the

[5] League of Nations, *Course and Phases of the World Economic Depression,* prepared by Bertil Ohlin (rev. ed.. Geneva, 1931), pp. 32–3.

rise of international deposit banking. Among its causes were flights of capital from one country after another, from Austria, Germany, France, and England, and from many smaller countries; the establishment and operation of and withdrawal from the gold exchange standard; the undervaluation of currencies; the replacement, in the international movement of funds, of the technique of finance bills by the technique of the forward exchange markets; the payment of large political international debts; the establishment of abnormal intermarket interest rate relationships as a result of unbalanced trade; the appearance of abnormal interest differentials between the short and long term markets, and the appearance of deposits, notably those related to the gold exchange standard, that could not move from short to long term employment as a result of interest rate differentials; the competition of money markets for supremacy in international finance, and finally the growth of private investment in securities in foreign markets by countless individuals and institutions for the sake of capital appreciation and for safety, rather than for income or temporary employment.

Loss of a genuinely balanced interchange of goods and permanently invested funds among the nations, and the erratic and often unmanageable behavior of the international loan fund altered the role of gold as an equilibrating factor in the world's balances of payments and often converted its confidence-inspiring and limiting functions in the world's banking systems into sources of danger and confusion.

The greatest single factor making for gold economy before 1914 was that the problem of international clearance was of manageable proportions and that there was a centralized and efficient mechanism for effecting that clearance. The elementary banking maxim that the more perfect the clearance the less the need for cash was exemplified on a world scale. The whole history of gold movements during and after the war illustrates the converse of that principle. Gold was attracted for long periods to certain countries as a substantial part of the merchandise balance of trade. Gold was moved in large quantities for special central banking operations and was hoarded in unprecedented amounts. The causes of gold movements became less and less directly related to the movement of goods in international trade and to the international investment of capital for productive purposes. The influence of special internal credit and currency problems in particular countries upon gold movements became more and more important, and, in a world in which there were two centers of gold distribution instead of one, many sudden shifts in the locus of the world demand for gold took place, often as a result of the movement of unfaithful balances and unfaithful securities between the two central markets. The restoration of the forms of the international gold standard from 1924 to 1928 did not eliminate the underlying forces leading to this new type of international gold distribution.

Deprived of its greatest instrument of gold economy through its lack of economic balance, the world turned to two others: the concentration of gold in the hands of central banks and the development of the gold exchange standard. The single great change in the external forms of the international gold standard of 1928–29 from that of 1914 was, therefore, the elimination of gold from actual circulation and the wide prevalence of the gold bullion standard. This was a successful gold economy measure, and in 1928 it cannot be said that the gold reserves of the world's central banks were inadequate to meet the demands actually made upon them, though it was true that without the hidden reserve of the circulation to fall back upon, and in the face of new and grave uncertainties in the future, the estimates of central bankers as to what constituted an adequate gold reserve were continually being revised upward. The gold exchange standard, unlike the gold bullion standard, was developed on a great scale not purely as a gold economy measure, but partly as a byproduct of stabilization operations. As a consequence, it was participated in on a large scale by one of the center countries, France, and with the beginning of an incipient economic depression, gold exchange balances tended to flow into the hands of the central banks of other creditor countries. In a decentralized financial system the gold exchange standard was dangerous under these circumstances. Before the war it had been, like the gold standard itself, in reality a sterling exchange standard, and gold exchange balances were centered in London and were of moderate amount. But the post-war gold exchange standard had no focal point. The balances created under it were free to move and did move from one creditor market to another. They were sufficiently large to create administrative problems in the markets that received them, and they accentuated the differences between long and short term rates of interest. Furthermore, the countries whose balances were in absolute amount the most important did not regard their own use of the gold exchange standard as permanent.

The techniques by which the international gold standard, as it stood in 1928–29, was operated were in many respects improvisations that modified pre-war practices, and that were made necessary because the foundations of the whole system were not those of the pre-war period. New agencies were required to carry them into effect, and old agencies had to be endowed with new powers and new authority. This was accomplished by the process we have described as the Rise of New Central Banks and New Central Banking. The international gold standard of 1928–29 was equipped with the means of conscious and planned inter-money market cooperation under the guidance of a centralized control within each individual market, to replace the pre-war 'solidarity of money markets,' achieved under the guiding influence of London through gold, exchange, interest, and security arbitrage. But in this it was armed with a double edged sword, for these instruments of cooperation could equally well be employed as weapons of competition and conflict.

There was one further major contrast between the pre-war gold standard system and the system of 1928–29. The fundamental prerequisite for international financial stability—stable internal credit conditions at the center—was not met. In an international financial system based upon two centers, this prerequisite is that there shall be stable credit conditions in both centers. The history of the English banking system from 1922 to 1929 was one of stability, enforced, it is true, by new techniques of management, subject to a certain degree of internal conflict, and in a measure divorced from its pre-war intimate connection with international financial transactions—but still a history of moderation and restraint. The history of the American banking system was one of steady and persistent credit expansion, pursued through a complicated and at times rather devious path, and based fundamentally upon the acquisition by the commercial banks of cash resources on a very large scale independently of the central bank. This history we have compressed into the single phrase, the One-Way American Banking System.

There was in the post-war period great pressure for capital exports, not only to help stabilize currencies, replace depleted supplies of capital in countries injured by the war, reconstruct devastated areas, and develop natural resources, but also to finance large one-way movements of goods and one-way payments of political debts. The responsibility for responding to this pressure, like that of providing an international medium of payment other than gold, and of distributing short term credit was divided primarily between London and New York. After 1926 this responsibility was shared also by France. For special reasons each of these three markets was impelled to pursue a somewhat independent policy in meeting this responsibility. The situation in the world was similar to that of a local clearing house with three members of nearly equal importance, each pursuing an independent policy in the extension of credit. As long as these independent policies were not in direct conflict the problems of world finance could be faced without disaster. This was still true at the beginning of 1928, but during that year the lack of fundamental balance in the underlying trade relations of the world, and in the debtor and creditor positions inherited from the war, began to make its presence felt. More and more strains were imposed upon the whole relationship of the center countries to the outlying countries, and upon the relationships among the center countries themselves. The international gold standard system could no longer postpone the consequences of having, by the de facto cooperation of the countries composing the nucleus, carried forward a series of great unsolved economic problems, just as had been done during the war.

Carrying forward Unsolved Economic Problems General Comparison with the War-time System

The unsolved economic problems after the return to gold were more complex than those of the war years. They were stubborn and intractable. The price that had to be paid to solve them was too high to be paid willingly. Therefore ultimate solutions were postponed, and for several years the world enjoyed a false sense of economic security.

An Unbalanced World Economy

In some ways the period 1925–29 had the characteristics of a boom. Production, especially of raw materials and durable consumers goods, and the volume of international trade, especially trade in manufactured articles, increased greatly. The quantum of world trade expanded more rapidly than production, just as before the war, and its rate of growth was also greater. The causes of this growth in production and trade were both technological and economic. F. C. Mills cites three major technological causes: an extraordinary advance in industrial technique, improvement in the means of communication, and a technological advance in methods of agricultural production, amounting almost to an agricultural revolution; and two major economic causes: the completion of

European reconstruction and the stabilization of the foreign exchanges with the consequent resumption of international lending.[6] Basic economic maladjustments, however, were maturing which were partly the consequence of the technological advances themselves and partly inheritances from the war.

THE CONTINUING LEGACY OF THE WORLD WAR

The influence of the World War upon the character and distribution of world production and trade has been a basic element in our analysis of the post-war gold standard, particularly in connection with the position of Great Britain and the United States. It has frequently been summed up by such phrases as a New Economic Environment, the Underlying Strength of the Dollar, and the Weakening of Great Britain's Basic Pull over the Exchanges. Beginning about 1924–25, the unsolved problems of this new economic environment were made more acute by a series of events in themselves highly desirable from a long run point of view. Certain countries, notably Germany and Russia, temporarily eliminated from effective international competition during the Restoration period, once more attempted to resume their pre-war participation in the world's economic life, but room had to be made for them. Europe as a whole began to regain its lost ground in international trade, but this tended to alter the precarious world balance partly achieved during the long period of interrupted normal growth. The character of international trade continued to exhibit, even more strongly, the changes noted in and, from a long run point of view, welcomed by the Balfour Report—less exchange of finished goods for raw materials and more exchange of one type of manufactured goods for another—but these changes imperiled vested interests and gave rise to new impediments to trade.

Chronic excess manufacturing capacity in the older manufacturing countries and loss of markets for certain industrial

[6] *Economic Tendencies in the United States* (National Bureau of Economic Research, 1932), pp. 461 ff.

raw materials, notably coal, were inevitable. Most important of all, raw material producers were placed in a disadvantageous position in relation to industry the world over, from which they could free themselves only partly and intermittently. In the words of F. C. Mills:

"This cleavage between the prices of industrial raw materials and of manufactured goods . . . affected economic processes throughout the world. With a limited number of exceptions, raw material producers in all parts of the world were in a position of marked economic weakness during the 20's. This weakness led to numerous ill-starred valorization efforts, impaired the purchasing power of colonial areas, clogged the flow of world trade and placed heavy strains upon the mechanism of international finance." [7]

These were not the only consequences of what may be described as the development of a 'scissors crisis' on a world scale. The measures taken to help agriculture accentuated the actual lack of balance in world supply and demand, which was at the root of the difficulty, and also interfered with the unifying influence of world market prices for staples. For example, the limitation of a free world market and government subsidies gave rise to a large beet sugar production that would otherwise not have taken place, and a declining trend in the price of wheat beginning in 1924 led to measures partly isolating various parts of the world market. The Canadian price diverged from the Liverpool price as early as 1923, and by the end of 1925 and the beginning of 1926 agricultural protection in France, Germany, Italy, Czechoslovakia, and Poland resulted in a series of semi-independent wheat prices in these countries, while for other reasons Russian wheat prices and those of some of the Danubian countries diverged widely from the international trend.[8] Finally, the

[7] *Ibid.*, pp. 542–3.

[8] Cf. *Wheat Studies of the Food Research Institute* (Stanford University), Vol. II, No. 2, p. 86, and Vol. II, No. 6, pp. 221–2. Speaking of the period from December 1925 to March 1926 the Institute says: ". . . there has been a striking divergence of wheat prices in different countries. The unity or

disparity between raw material and foodstuff prices and those of manufactured goods altered the barter terms of trade. Throughout the post-war period up to 1928 states exporting manufactured goods were able to buy their imports of foodstuffs and raw materials relatively cheaply, while states exporting crude foodstuffs and raw materials had to give up a greater quantity of these products than in 1913 in exchange for the same amount of manufactured goods.

Among the legacies of the war and the period of fluctuating exchanges was a high and ever mounting system of tariffs, and numerous new trade restrictions. The economic statesmen of the world recognized that these were an obstacle to fundamental economic adjustments, and after the return to gold a movement was set on foot to reduce them. This movement culminated in a World Economic Conference which after long preparation[9] met in Geneva in May 1927. This Conference adopted a unanimous report recognizing the interdependence of nations and embodying its most important single conclusion in the statement: "the time has come to put an end to increases in tariffs and move in the opposite direction." Its recommendations were never carried out, for the whole movement for freer trade was destroyed by the world-wide pressure for agricultural protection after 1928. This avenue leading toward ultimate solutions was closed because it was not practical politics, and the war-time legacy of impediments to trade remained and was even added to.

A DECLINING PRICE TREND

Inadequate outlets for existing productive capacity, increased productive efficiency, and falling per unit costs of production of manufactured goods and of industrial raw materials, and

simplicity of relation suggested by the term 'world price of wheat' has been conspicuously absent."

[9] The Conference was proposed to the League Council in September 1925 and its Preparatory Commission was constituted in November 1926; 'The World Economic Conference at Geneva,' *Economic Journal*, Sept. 1927, pp. 465–72.

increasing production of the world's staples, together with the important, if passing, effects on the under- and overvaluation of currencies, resulted in a tendency for prices to decline from 1925 to 1929. F. C. Mills has pointed out that wholesale prices in 28 countries reached a level at some date prior to

TABLE 61

The Turning Point in Prices in 22 Countries in relation to Various Events

The turning point is taken as the 'pre-recession high' selected by F. C. Mills. A plus (+) indicates the number of months by which the turning point preceded; a minus (−), the number of months by which it followed the given event.

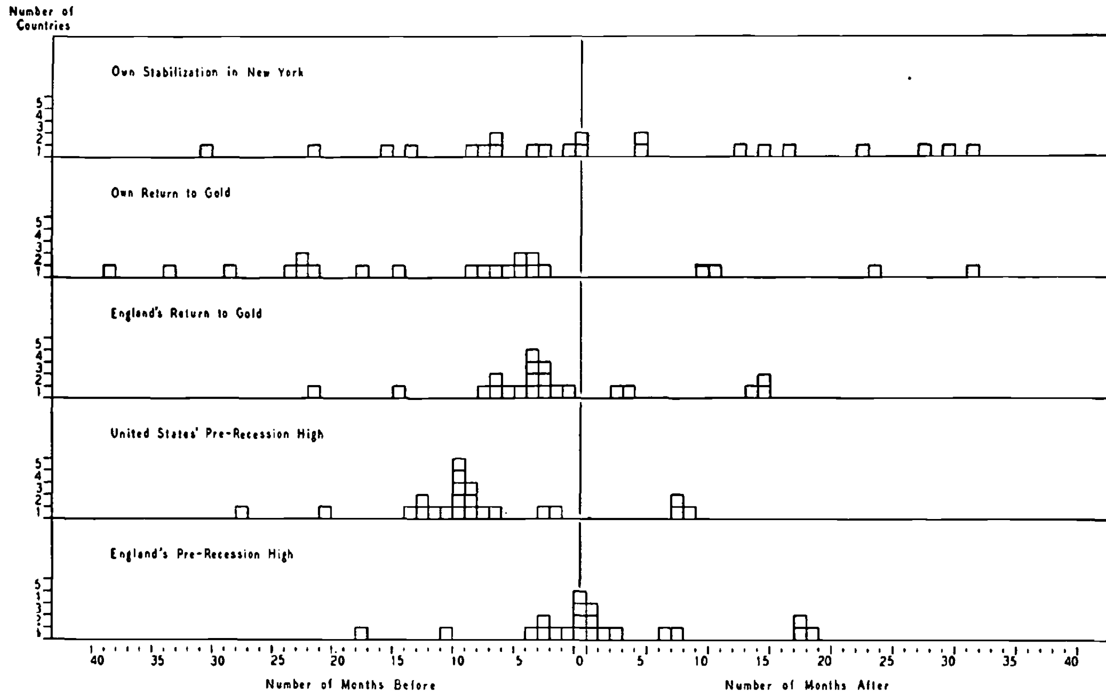
	Own stabilization in N. Y.	Own return to gold	England's return to gold	U.S.A. pre-recession high	England's pre-recession high
Lithuania	−32	−32	+1	+7	−3
Sweden	−30	−10	+3	+9	−1
Austria	−28	−24	+4	+10	0
Czechoslovakia	−23	+15	+4	+10	0
Bulgaria	−13	+23	+3	+9	−1
Finland	−17	+4	−3	+3	−7
Germany	−15	−11	−4	+2	−8
Canada	−6	+18	+4	+10	0
Switzerland	+9	+9	+15	+21	+11
Netherlands	0	+5	+6	+12	+2
Estonia	−4	+34	+2	+8	−2
Hungary	+1	+5	+5	+11	+1
United Kingdom	+4	+4		+10	
Australia	+22	+22	+22	+28	+18
New Zealand	+8	+8	+8	+14	+4
South Africa	+7	+7	+7	+13	+3
India	+7	+29	+7	+13	+3
Denmark	+14	+24	+4	+10	0
Belgium	+3	+3	−14	−8	−18
Norway	+31	+39	+3	+9	−1
Italy	+16	+16	−15	−9	−19
France	−5	+23	−14	−8	−18

Compiled from F. C. Mills, *Economic Tendencies in the United States*, pp. 318-9

1928–29 higher than that from which the major declines of the 'thirties began. This turning point in prices Dr. Mills has called the 'pre-recession high.' It was reached in almost all cases in 1924–25. It was not related directly to the dates of the de facto stabilization in dollars of the currencies of particular countries, or to the dates of their de jure stabilization

CHART 52

The Turning Point in Prices in 22 Countries in relation to Various Events



in gold. It was, however, closely related to the turn downward in prices in Great Britain which took place in January 1925. The United States, in which the turning point came in November 1925, was one of the last countries to share in this general trend.[10] These time relationships are shown for 22 countries in Table 61 and are indicated graphically in Chart 52. When the whole list of 29 countries for which Dr. Mills has selected pre-recession highs is arranged in the order in which the turning points were reached, the concentration around the turning point in Great Britain is even clearer (Table 62 A).

For some years after the return to gold the declining trend in prices was gradual, and there was no consistent pattern in the behavior of the price levels of large groups of countries. Prices were working downward more rapidly in Great Britain than in the United States, and the direct influence of these two great economic units upon the world price structure was conflicting. In this general readjustment the effects of under- and overvaluations of currencies, and of the stabilization crises in various countries were gradually working themselves out.

Dr. Mills has selected a series of dates in 1928 and 1929 when the gradual drift downward was converted into the rapid decline that marked the beginning of recession in the world business cycle. These dates he has called the recession highs.[11] They are given for his list of 29 countries in Table 62 B, in chronological order, and in Table 62 C the same countries are arranged in the order of the size of the decline in their price levels between their pre-recession and recession highs, and the number of months intervening between these two dates is indicated. From these tables a general view of the character of the price level adjustments of the first four years of Experimentation can be obtained.

[10] *Op. cit.*, pp. 317–21. The selection of these dates is in itself a difficult statistical problem. The months are in every case those given by Dr. Mills.
[11] *Ibid.*, p. 317.

TABLE 62: *Wholesale Price Levels in 29 Countries between Pre-Recession and Recession Highs*

A COUNTRIES IN ORDER OF DATES OF PRE-RECESSION HIGHS

Australia	July	1923
Dutch E. Indies	Dec.	–
Switzerland	Feb.	1924
New Zealand	Sept.	
British India	Oct.	
South Africa	Oct.	
Japan	Nov.	
Netherlands	Nov.	
Hungary	Dec.	
Spain	Dec.	
Austria	Jan.	1925
Canada	Jan.	
Czechoslovakia	Jan.	
Denmark	Jan.	
United Kingdom	Jan.	
Egypt	Feb.	
Norway	Feb.	
Sweden	Feb.	
Bulgaria	Feb.	
Estonia	March	
Poland	March	
Lithuania	April	
Finland	Aug.	
Germany	Sept.	
United States	Nov.	
Belgium	July	1926
France	July	
Italy	Aug.	
Peru	May	1927

SOURCE: F. C. Mills, *op. cit.*, p. 318

B COUNTRIES IN ORDER OF DATES OF RECESSION HIGHS

Sweden	May	1928
Norway	Aug.	
Finland	Aug.	
Egypt	Nov.	
Spain	Nov.	
Japan	Dec.	
South Africa	Jan.	1929
Czechoslovakia	Feb.	
Denmark	Feb.	
Netherlands	March	
Hungary	March	
United Kingdom	March	
Estonia	March	
Poland	March	
Germany	March	
Belgium	March	
France	March	
Italy	March	
Peru	March	
Lithuania	April	
Dutch E. Indies	May	
Austria	May	
Bulgaria	May	
Switzerland	July	
United States	July	
Canada	Aug.	
Australia	Sept.	
New Zealand	Sept.	
India	Sept.	

C COUNTRIES IN ORDER OF PERCENTAGE DECLINE BETWEEN PRE-RECESSION AND RECESSION HIGHS

	PERCENTAGE DECLINE	MONTHS BETWEEN THE 2 DATES
Bulgaria	2.1 *	51
Belgium	0.8	32
Finland	1.9	36
Germany	3.3	42
Estonia	3.9	48
Canada	7.2	55
United States	7.7	44
Austria	8.1	52
Czechoslovakia	8.2	49
Netherlands	8.6	52
Peru	8.7	22
Australia	9.5	74
South Africa	9.7	51
Sweden	10.1	39
New Zealand	10.7	60
Lithuania	11.1	48
Spain	11.2	47
Dutch E. Indies	14.8	65
Hungary	15.0	51
Poland	16.3	48
United Kingdom	18.1	50
Japan	18.9	49
India	19.2	59
Egypt	19.9	45
Switzerland	20.2	65
France	23.4	32
Italy	27.8	31
Denmark	34.6	49
Norway	42.4	42

* Increase.

A RIGID PRICE SYSTEM

The tendency of prices to fall was resisted in many ways. In industry one of the striking features of the period was the growth of large scale corporate control and monopolistic or semi-monopolistic practices which made possible a good deal of price fixing. The adoption of 'rationalization' programs, taking their example from the most efficiently organized American industries, and the development of cartel control of many important industrial products had the same result. The European steel cartel was probably the most important single example of price maintenance in industry by such devices, but the movement was of world-wide significance and has brought into existence a vast literature of its own. In the extractive industries and agriculture the sequence of events was large production first, followed by every sort of price maintenance scheme.

Dr. Mills has listed the products affected by valorization and price maintenance schemes, together with the years of their initiation and abandonment. By the time the international gold standard facade was completed in 1928–29, this list had become impressive.[12]

PRODUCT	DATE OF INITIATION AND ABANDONMENT	PRODUCT	DATE OF INITIATION AND ABANDONMENT
Crude rubber	1922-28	Quinine	1913-
Coffee	1922-	Camphor	1899-
Wheat	1923 (Canada)	Cotton	1929 (U.S.A.)
	1928 (U.S.A.)	Copper	1926-
Silk	1914-22	Nitrate	1919-27
	1926-28		1928
	1929-		1929
Sugar	1925-28	Potash	1924-25
	1929-		1926
Steel	1926-	Mercury	1928
Aluminum	1926-	Sulphur	1923
Manganese	1927	Sisal	1920
Zinc	1928	Rayon	1928

A Deferred Cyclical Adjustment

Looking back upon this situation from the depths of the depression in 1932, one of the most active participants in the

[12] *Ibid.*, pp. 327–9.

World Economic Conference of 1927, whose labors were largely responsible for the unanimous recommendations in favor of freer trade, summarized for one of the authors of these studies the events leading to the world crisis in a manner at once so broad in outlook, so condensed in form, and so in harmony with the point of view here presented that it provides an admirable means for drawing together several major threads of our analysis. This summary began with the assumption that the causes of the crisis lay in the influence of the war on the world economy: overstimulation of wheat production on the North American continent, in South America, and Australia; overstimulation of industrial enterprises in the British Dominions, the Far East, Canada, and South America; overstimulation of cane sugar production during the war and of beet sugar production after the war. The maladjustments of world production had been apparent, especially in agriculture, since 1921, but protective measures by individual governments sometimes temporarily veiled the stark facts of relative overproduction from a world point of view in many commodities. A continuous expansion of credit, emanating from the United States and Great Britain, facilitated, after 1925, the financing of production and trade in these relatively overproduced commodities at too high a price range and aggravated the forces of disequilibrium in world production that had their origin in the World War. The fall in prices of 1929 was inevitable. Its catastrophic character was due to the artificiality of the 1929 price structure which was maintained only by various credit pools, such as the Canadian wheat pool, the coffee valorization pool, and the fertilizer pool. Once the banks started to open the bulkheads between the water-tight compartments of the credit structure, the sea of fundamental economic forces engulfed the leaking 1929 price structure ship. The banks were not responsible for the liquidation and the consequent price falls. Economic forces were stronger than the banks in 1929. But the banks, especially in the United States and Great Britain, to which the banking world looked for guidance, were responsible for not having properly understood the economic facts of the post-war world.

Before 1925 concentration upon the goal of a return to normal and upon the achievement of stable exchange rates, and after 1925 the splendors of a stable gold standard blinded the eyes of bankers and of the world in general. The illusion that the economic maladjustments would be corrected by automatic forces was dominant in the world's financial thinking.

THE GENERAL SIGNIFICANCE OF THE CRITICAL DECISIONS OF 1927

It is in their relation to the prolongation of the flow of international credits which carried forward unsolved these grave economic problems that the critical financial decisions of 1927 assume their major historical importance. One of the minor oscillations around the rising level of the prosperity phase of the international cycle of 1920–29 was the moderate depression of 1927 in the United States. This coincided with a clear demonstration of the inability of the Bank of England to reduce Bank rate below 4½ per cent without danger to the gold standard because of the fundamental lack of adjustment of the British economy to the new conditions. It coincided also with a critical turning point in the rationalization movement in Germany. Finally, it coincided with a period in which the terms of trade between raw material and foodstuff producing countries and manufacturing countries were turning strongly against the former.[13] The inter-central bank cooperation of 1927 helped to relieve these pressures. It was, indeed, imperative that they should be relieved if the newly established and as yet incomplete international gold standard facade was to be preserved and extended.

[13] Raw material producing countries had experienced a brief period of relief immediately after the return to gold and the resumption of international lending; League of Nations, *World Economic Survey, 1931/2*, p. 184, and chart, p. 185.

The critical decisions of 1927 were taken in the interests of stability and normal international intercourse, and had the reliance placed upon the corrective forces of the international gold standard been well founded, they would have been constructive decisions. Had they not been taken, a genuine turning point would almost certainly have developed in 1927. As it was, Great Britain was relieved from pressure, the French policy of returning to gold at the low rate of de facto stabilization was not interfered with, a period of activity, especially in securities, was encouraged in the United States, capital flowed to Germany and South America, the rationalization movement in Germany was as a consequence accelerated, a continued large commodity export surplus from the United States was financed, and, finally, the terms of trade between raw material and food producing countries and industrial countries, and more broadly speaking the terms of exchange between agriculture and industry the world over were altered somewhat in favor of agriculture.[14] These effects were for the most part not permanent, and by the latter part of 1928 the impetus toward a prolongation of the prosperity phase of the world cycle was beginning to wear itself out. Thus the action of the League of Nations Assembly in 1928 in finally agreeing to proceed to fix the amount of German reparation [15] not only came at a time when dammed up economic forces were about to compel the world to face the unsolved economic problems left over by the war but also coincided with a deferred cyclical adjustment.

An Unsolved Reparation Problem

Under the Dawes Plan Germany's adherence to the international gold standard was directly bound up with her reparation obligations, and the transfer protection under the plan was a guarantee that this great political indebtedness would

[14] This statement is based upon the chart in *ibid.*, p. 185.

[15] Negotiations for a 'final' settlement began on February 11, and the New Plan was signed on June 7, 1929.

not be allowed to disrupt the world's new system of exchange rates. From 1925 to 1928 the series of war debt agreements begun by the funding of the British war debt to the United States in December 1922 was gradually extended, and in June 1929 completed by the ratification of the Mellon-Berenger Agreement by the French Chamber. These agreements as a whole diverted the bulk of Germany's payments as the world's largest political debtor to the United States, the world's largest political creditor. The whole system rested upon the double assumption that these sums could be raised in Germany and transferred abroad. It was incomplete in form as long as the total of German payments was not fixed. The problems raised by it were unsolved as long as the capacity of the German budget to raise the amounts required was doubtful and the underlying transfer problem was not faced and met. In 1928 the problems of the German budget were already making a reduction in the standard annuity of the Dawes Plan imperative for Germany and acceptable to the creditor powers, but the transfer problem did not even then have to be faced squarely. Like the economic problems clustered about the position of agriculture, or about the American balance of payments, and many others, it was postponed through the international flow of credits.

The Young Plan completed the system of post-war political debt settlements by fixing the total German obligation. It recognized the interrelations of all these debts by the euphemism 'out payments.' [16] It reduced the annual totals, began a partial commercialization of the reparation obligation, and brought temporary relief to the German budget through its proposal of the so-called 'Young Loan.' But it did not solve the reparation problem, for this depended upon the development of an export surplus by Germany which, according to Dr. Angell, was to be the work of twenty years. Nevertheless, the Young Plan removed the legal transfer protection of the

[16] The real politico-economic struggle in Europe over the Young Plan was a struggle for the surplus not earmarked for the United States.

Dawes Plan, for it was negotiated under the fixed illusion of stability created by the apparently successful restoration of normal conditions under the gold standard, and the apparent prosperity that followed the dispersion of the gathering economic clouds of 1927. Legal transfer protection, therefore, ceased upon the eve of the removal of the real economic transfer protection afforded to Germany by the steady import of capital and at a moment when the need of such protection was about to become urgent. At the same time, the Plan placed the responsibility for making transfers wholly in German hands, and provided a new agency to carry out its provisions and to meet temporary strains that might arise in its execution—the Bank for International Settlements. This proposed bank was in a sense a child of the Genoa Conference.[17] Its endowment with functions beyond those related to reparation was the fulfilment of a movement toward formally organized inter-central bank cooperation to meet the new technical problems of a divided world which had long been in progress.

The Young Plan was not ratified until January 1930. It left as an inheritance for the first years of a world-wide economic depression the first genuine reparation transfer problem since 1922, and started upon its new duties an institution dedicated to the perfection of the technique of the new gold standard and the final completion of the gold standard system on a world-wide scale, just at the moment when the experiment of operating a decentralized world credit structure in an unbalanced world economy was reaching its crucial test.

General Comparison with the War-Time System

In Chapter 6 we suggest the similarities existing between the situation just described and the war years. The concluding section of that chapter and the present section bear the same caption. In both periods the means of gold standard adjust-

[17] E. L. Dulles, *The Bank for International Settlements at Work* (Macmillan, 1932), p. 16.

ment were used to carry forward unsolved economic problems. In both a disregard of long run consequences led to a distribution of gold not in accordance with the long run needs of the banking systems of the world, and a distribution of international credit that was not, in the true economic sense, a time-bridging operation. Therefore both the effort to maintain approximately the old system of exchange rates during the war and the maintenance of the international gold standard after 1925 were pegging operations on a vast scale. As during the war the international lending of the 1920's was inflationary in both the lending and borrowing countries. In virtually all countries from 1925 to 1929 the expansion of credit was greater than the growth of industry. Real savings were less than real investment, and bank liabilities tended, especially in countries like Germany and Austria whose domestic expansion was largely financed by international loans, to grow faster than bank capital.[18] The decentralization of the world credit system added to the inflationary effect of this type of international lending as a result of the competition of the principal center markets for loans and prestige.

Though not universally applicable to the gold standard of 1925–29, because of the internal stability of France after 1926 and the deflationary pressures in Great Britain, yet over a wide area, particularly in the United States and Germany, the whole analysis of the inflationary effects of the accumulation and use of the resources employed in pegging upon the supply of bank credit, given in Chapter 4, is applicable to the 1925–29 period. Whether in war or peace, when gold movements and international lending are used persistently to maintain a fundamentally unbalanced economic structure, when international loans are not made from savings and do not contribute to the production of exports in the borrowing country or its debtors, then the international gold standard becomes a temporary exchange pegging device and is an inflationary instrument. It ceases to be a guarantee of stability

[18] *World Economic Survey, 1932/3*, pp. 38–141 passim, especially pp. 126, 141.

and an instrument for facilitating the orderly and progressive exploitation of the world's resources for the improvement of the condition of human beings.

Despite all differences in the times, therefore, this general comparison with the war period has a basic justification. The comparison of the gold standard facade of 1928–29 with the pre-war international gold standard system gives only half the picture and provides an inadequate basis, without the war-time comparison to supplement it, for an appraisal of the influences leading to the disintegration of the international gold standard system from 1929 to 1931.