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of Recent Changes

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CHAPTER IV

THE WORLD PRICE STRUCTURE IN RECESSION AND RECOVERY

THE movements of prices, of production and of purchasing power during recession and recovery in the United States were aspects of world-wide swings. It is true that national economic boundaries have been more sharply drawn in recent years, but the world retains many qualities of a single economic unit. Whether we will or no, we are affected by the major forces that influence the course of economic events in other industrial countries. We shall better understand domestic movements, therefore, if at this point we survey in a general way the world situation created by recession, and follow the major changes of more recent years in the currents of world trade and the fluctuations of prices and costs in important industrial areas. In some respects these have paralleled the internal shifts discussed in tracing the course of events in the United States, but the world picture is painted on a much broader canvas. And the restoration of a normal volume of world trade involves, of course, many elements quite foreign to the domestic situation.

In 1929 aggregate world production and the physical volume of world trade reached a peak, for the post-War decade. Fairly steady progress during the preceding five years had brought substantial recovery, in respect of physical activity, from the depressed conditions of the early years of the decade. World-wide recession in 1929 reversed this movement. Within three years world production of primary prod-

ucts—crude foodstuffs and industrial raw materials—declined about 10 per cent. The volume of manufactures and construction dropped more sharply. The physical volume of world trade fell 26 per cent. The number of unemployed workers throughout the world increased, by rough estimate, from some ten million in 1929 to about thirty million in 1932.[1] By that year the major force of the recession was spent. The four years following brought conflicting movements. Moderate improvement occurred in some areas; deflation persisted in others. Numerous obstacles impeded a restoration of full activity, but in general the forces of recovery dominated the diverse cross-currents of change of the period 1932–36. On a world view, these were years of halting revival.

The price changes that accompanied this tremendous economic upheaval were more extreme than the physical movements. Our present concern is with the alterations that occurred within the world price structure under the impact of recession and the stimulus of revival.

Recession and Recovery in World Prices: A General View

A general picture of the sweep of the recession as it spread swiftly from country to country through the delicate mechanism of international price relations has been given in Chapter I. The measurements there employed relate to national currencies, an appropriate procedure when chief interest attaches to domestic conditions in the various countries. But the picture is quite incomplete if such changes alone are considered. For during the period covered by this record country after country departed from the gold stand-

[1] Cf. *World Economic Survey, 1932–33* (League of Nations, Geneva, 1933), p. 109.

ard; dual currency systems were created throughout the world. The concurrent existence of gold standard and non-gold standard currencies exerted a great influence on the course of price movements and on the general economic fortunes of the various countries concerned.

TABLE 9

PRICE RECESSION IN THIRTY-TWO COUNTRIES, 1928–1936

A SUMMARY OF CHANGES IN INDEX NUMBERS OF WHOLESALE PRICES

(Price movements are here measured in gold values.) [1]

	DATE OF PRE-RECESSION HIGH		DATE AT WHICH LOWEST POINT WAS REACHED		PERCENTAGE DECLINE FROM PRE-RECESSION HIGH TO LOWEST FIGURE
Japan [3]	October	1929	March	1935	—71
Argentina [3]	May	1928	May	1934	—68
Peru	March	1929	November	1933	—67
Egypt (Cairo)	November	1928	September	1933	—66
Australia	September	1929	March	1935	—64
India (Calcutta)	September	1929	March	1935	—64
Estonia [3]	March	1929	April	1935	—62
Denmark [3]	February	1929	March	1935	—61
Sweden	May	1928	March	1935	—59
Chile [3]	March	1929	March	1935	—58
New Zealand	September	1929	March	1935	—58
Norway	August	1928	March	1935	—58
Canada	August	1929	August	1935	—57
Dutch East Indies [2]	May	1929	March	1936	—57
United Kingdom	March	1929	March	1935	—57
Jugoslavia [3]	May	1928	August	1934	—57
Belgium [3]	March	1929	April	1935	—56
Finland	August	1928	March	1935	—56
Bulgaria [3]	April	1929	January	1934	—55
Union of South Africa	October	1928	April	1935	—55
United States	July	1929	April	1934	—55
Spain [3]	December	1928	September	1934	—53
Netherlands [2]	March	1929	April	1933	—52
France [2]	March	1929	July	1935	—51
Hungary [3]	March	1929	November	1933	—48

TABLE 9 (*cont.*)

PRICE RECESSION IN THIRTY-TWO COUNTRIES, 1928–1936

	DATE OF PRE-RECESSION HIGH		DATE AT WHICH LOWEST POINT WAS REACHED		PERCENTAGE DECLINE FROM PRE-RECESSION HIGH TO LOWEST FIGURE
Poland [2]	March	1929	March	1936	—48
Italy [3]	March	1929	May	1934	—47
Czechoslovakia [3]	February	1929	April	1934	—43
Austria [3]	May	1929	April	1933	—40
Switzerland [2]	July	1929	March	1935	—40
Latvia [3]	March	1928	June	1934	—38
Germany [3]	July	1928	April	1933	—36

SOURCES: *League of Nations Year-Book, 1934–35;* pp. 219 *ff; Monthly Bulletin of Statistics,* League of Nations, Geneva.

[1] For an explanation of procedure, see Appendix IX.

[2] Countries on gold standard, March 1936. [3] Official foreign exchange control.

The character of the world price recession, in gold values, is indicated by the entries in Table 9. The various national index numbers are not fully comparable, since they differ in respect of the number and character of commodities included and in technical methods of calculation. Under identical economic conditions, in recession, these differences would cause some variations among the declines recorded. However, variations due to instrumental differences of this sort would be far smaller than those actually recorded. It would be well if we had comparable index numbers for different countries, but in default of these we may use the measurements available, recognizing that some of the differences observed may be instrumental rather than truly economic.

The price declines of recession, in gold values, ranged from 36 per cent for Germany to 71 per cent for Japan. The median decline for the thirty-two countries was 56 per cent, as compared with a median decline of 36 per cent in terms

of national currencies (see Chapter I). The declines in gold prices were more severe and, as is to be expected, show less variation from country to country than do the measurements based on national currencies. In general, the average decline of wholesale prices in terms of gold values was less in gold standard countries than in non-gold countries.

We may carry the comparison of price movements in gold standard and non-gold standard countries through recovery as well as recession (Table 10 and Figure 7). For this pur-

TABLE 10

MOVEMENTS OF WHOLESALE PRICES IN GOLD STANDARD AND NON-GOLD STANDARD COUNTRIES, 1929–1936

	NET CHANGE (PER CENT)								
	MARCH 1929 TO AUGUST 1931			AUGUST 1931 TO MARCH 1933			MARCH 1933 TO MARCH 1936		
	Countries on gold standard	Countries off gold standard		Countries on gold standard	Countries off gold standard		Countries on gold standard	Countries off gold standard	
		Price in national currency	Price in gold		Price in national currency	Price in gold		Price in national currency	Price in gold
Dutch East Indies	—31			—30			—11		
France	—25			—20			—4		
Germany [1]	—21			—17			+14		
Hungary [1]	—32			—11			+11		
Latvia [1]	—31			—2			+4		
Netherlands	—36			—23			+8		
Poland	—30			—14			—13		
Switzerland	—24			—17			+1		
Belgium [1]	—29			—18				+15	—17
Czechoslovakia [1]	—25			—10				+9	—9
Estonia [1]	—25			—13				+12	—32
United States	—25			—16				+32	—22
Austria [1]	—17				—3	—26		+1	+3
Bulgaria [1]	—36				—21	—24		+6	+9
Canada	—26				—9	—24		+12	—21
Chile [1]	—24				+129	+14		+5	—48

TABLE 10 (*cont.*)

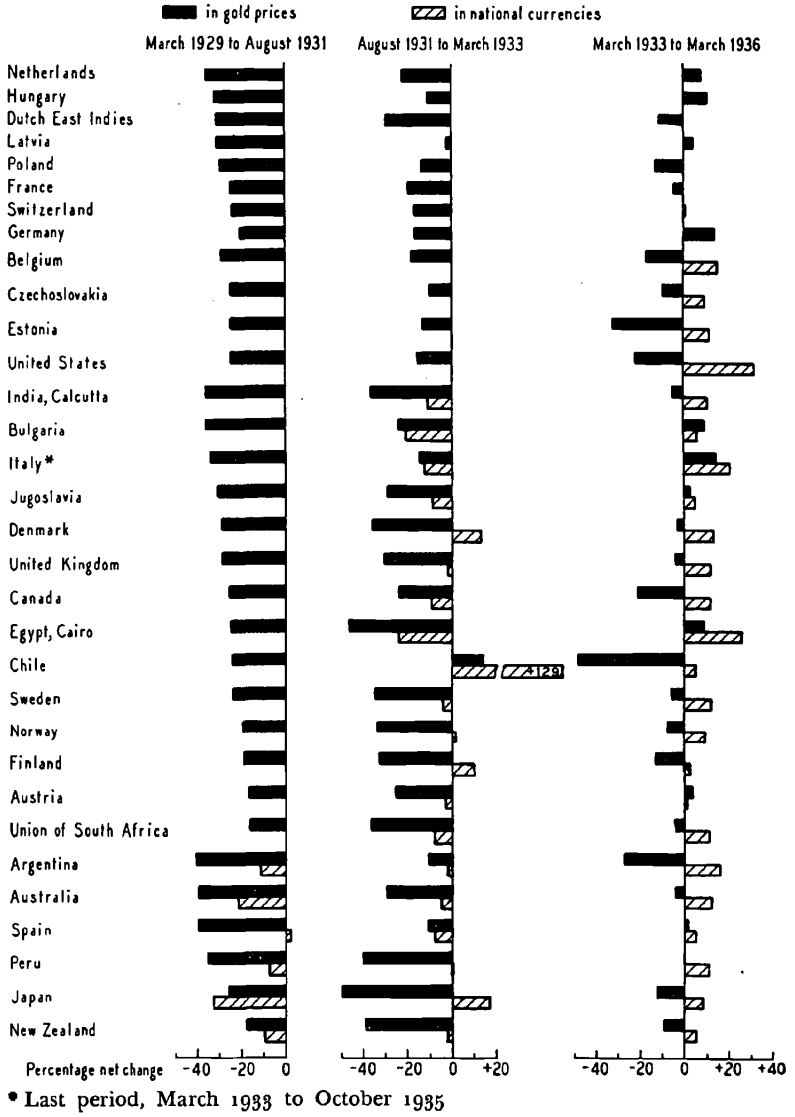
MOVEMENTS OF WHOLESALE PRICES IN GOLD STANDARD AND NON-GOLD STANDARD COUNTRIES, 1929–1936

	NET CHANGE (PER CENT)								
	MARCH 1929 TO AUGUST 1931			AUGUST 1931 TO MARCH 1933			MARCH 1933 TO MARCH 1936		
	Countries on gold standard	Countries off gold standard		Countries on gold standard	Countries off gold standard		Countries on gold standard	Countries off gold standard	
		Price in national currency	Price in gold		Price in national currency	Price in gold		Price in national currency	Price in gold
Denmark [1]	—29				+13	—36		+13	—3
Egypt (Cairo)	—25				—24	—47		+26	+9
Finland	—19				+10	—33		+2	—13
India (Calcutta)	—36				—11	—37		+11	—5
Italy [1]	—34				—13	—15		+21 [4]	+14 [4]
Jugoslavia [1]	—31				—9	—29		+5	+3
Norway	—20				+1	—34		+9	—8
Sweden	—24				—4	—35		+12	—6
Union of South Africa	—16 [2]				—8 [3]	—37 [3]		+11 [5]	—4 [5]
United Kingdom	—29				—2	—31		+12	—4
Argentina [1]		—12	—41		—2	—11		+16	—27
Australia		—22	—40		—5	—30		+12	—4
Japan [1]		—33	—26		+17	—50		+8	—13
New Zealand		—10	—18		—2	—39		+5	—9
Peru		—8	—36		0	—41		+11	0
Spain [1]		+2	—40		—8	—11		+5	+1
Median change									
Unweighted	—26	—11	—38	—16	—4	—32	+2	+11	—6
Weighted [6]	—25	—22	—40	—17	—2	—31	+8	+12	—8
Number of countries	26	6	6	12	20	20	8	24	24

[1] Official foreign exchange control (as of March 1936).
[2] April 1929 to July 1931.
[3] July 1931 to April 1933.
[4] March 1933 to October 1935.
[5] April 1933 to April 1936.
[6] In computing the weighted median, the weight of each country is based upon the relative importance of its foreign trade in 1929.

FIGURE 7

WHOLESALE PRICES IN GOLD STANDARD AND NON-GOLD STANDARD COUNTRIES, 1929–1936



* Last period, March 1933 to October 1935

pose we divide the period of recession and recovery into three parts: March 1929 to August 1931 (Great Britain departed from the gold standard in September 1931); August 1931 to March 1933 (the United States departed from the gold standard in April 1933); March 1933 to March 1936. (The first phase is dated from March 1929, as that month marked the high point of prices in a considerable number of European countries.)

From March 1929 to August 1931 the median (unweighted) decline of wholesale prices in twenty-six countries on the gold standard during the entire period was 26 per cent. For six countries not on the gold standard at the end of the period we have two sets of records for comparison with this figure. Wholesale prices in these countries suffered a median decline of 11 per cent, in terms of national currencies. In gold equivalents, the median decline in these six countries amounted to 38 per cent. Departure from the gold standard was apparently associated with less drastic declines in domestic prices. In terms of gold, however, prices in the countries off the gold standard fell even more sharply than did prices in gold standard countries. This accentuated decline of gold prices in countries off the gold standard tended, in so far as international trade competition persisted, still further to depress prices in countries remaining on the gold standard.

The next period of nineteen months covers the interval between the dropping of the gold standard by Great Britain and by the United States. In the twelve countries remaining on the gold standard prices continued to decline at about the rate prevailing during the preceding period of twenty-nine months. The median decline for these countries was 16 per cent. The twenty countries off the gold standard show median price declines of 4 per cent in terms of their respective national currencies. The history of the earlier period

repeated itself, except that the group of non-gold standard countries was much larger and economically more significant. Where currencies were depreciated the drop in domestic prices was checked. Great Britain's decline of 29 per cent during the first period was followed by a decline of only 2 per cent in the second period. But the very move that served to check domestic declines exerted a downward pressure on world gold prices. The gold equivalents of the national currencies of the twenty countries off the gold standard during this second period suffered a median decline of 32 per cent.

Only eight of the original list of thirty-two countries were on the gold standard [2] during the third period. In five of these countries gold prices advanced; the median gain was 2 per cent. In the twenty-four countries off the gold standard domestic prices registered a median advance of 11 per cent. The gold equivalents of these domestic prices dropped, however, the median decline being 6 per cent. But the situation as a whole clearly reflects a lessening of the downward pressure on gold prices. Liquidation was checked, and the basis of price recovery was being laid. We deal with this phase in later pages.

World Price Relations in 1933

In discussing the structure of world prices as it existed in 1929 emphasis was placed on the effects of the long period

[2] The introduction of various types of exchange control renders it difficult, in some cases, to distinguish gold standard from non-gold standard countries. In September 1936 the government of France announced measures for the reduction of the gold value of the franc. This step was followed by similar action by the Netherlands and Switzerland, and at a later date by Italy. International price relations, as well as the internal price structures of the countries immediately concerned, will, of course, be profoundly affected by these changes.

of economic non-intercourse (or of intercourse upon distorted and necessarily temporary bases) which began in 1914 and which extended, for some countries, to the middle of the decade of the 'twenties. As a result, in large part, of this non-intercourse, world prices and other elements of the world economic structure were not in gear when commercial and financial relations were generally restored. Disproportionate and unbalanced developments had occurred during the preceding years in different parts of that structure. By 1929 definite progress towards a more stable basis of economic intercourse had been made, though many of the faulty adjustments growing out of the period of non-intercourse persisted. We turn now to a brief survey of the situation existing early in 1933, with reference to the structure of prices and costs then prevailing. This will be done in general terms. Various supporting data will be presented in the next section, in which primary emphasis is placed upon the movements of recovery. The discussion of the situation in 1933 may fall under three headings, dealing with disparities in price levels, disparities in production costs, and disparities in the prices of commodities in certain groups of major importance.

DISPARITIES OF PRICE LEVELS

Unequal and considerable changes in national price levels, occurring over a relatively short period, throw international trading relations out of adjustment. This statement is axiomatic, as applied to a world economic system that operates on the basis of price relations; for any changes in the wholesale price levels of trading countries, particularly unequal changes, will entail numerous and unequal changes in the individual prices on which trading relations are based. Some of these shifts may tend to stimulate the import or export of particular commodities, but the net effect of wide altera-

tions will be to destroy the prospects of profitable commerce and to cramp trade.[3]

The wide diversity of the declines in wholesale prices in different countries between 1929 and 1933 has already been noted. In terms of national currencies the price level in Chile, in February 1933, was 79 per cent above that of 1929, and in the Dutch East Indies, 50 per cent below that level. These were the two extremes between which the other national price levels ranged. On a common gold basis the index numbers, with reference to 1929 as 100, range from 37 in Japan to 89 in Chile (see Table 13). It is not surprising that the delicate relations of trade suffered from these tremendous inequalities of change. Here was one important factor in the decline of 61 per cent in the aggregate value of world trade and of 26 per cent in its volume, between 1929 and 1932. (Other factors, notably rising tariff walls and the practical cessation of international lending, contributed, of course, to the trade decline.)

The 1929 standard of reference is not perfect. It is far from certain that world economic relations in that year were

[3] It is not true, of course, that unequal changes in national price structures are always a causal factor in throwing international trading relations out of adjustment. During a period of non-intercourse, or of intercourse restricted by high quota or tariff barriers or other factors, the elements of national price structures will inevitably get out of alignment. Price disparities develop under these conditions because of restrictions on trade. But if monetary or other forces present during a general recession press upon national price structures, bringing wide and unequal changes, the international price disparities thus set up may play a causal role in checking the movements of goods and forcing a readjustment of commercial relations. Not all the international price disparities that developed after 1929 were of this latter type, but there is no doubt that a great many of them were. The violent changes that price recession brought, all over the world, created conditions definitely adverse to the continuance of trade upon existing terms. It is true that opportunities for new trade may be created by the very changes that impede the previously existing trade, but the adaptation of national economies to new conditions of world trade is a painfully slow process.

adjusted to continuing and effective international cooperation. We may not assume, on the other hand, that pre-War relations constitute an ideal standard against which to measure current conditions, but it is desirable that we view the price relations of 1933 with reference to this earlier standard. In terms of national currencies and on a pre-War base the price levels of 1933 were very widely scattered indeed (see Table 14). Index numbers of wholesale prices ranged from 72 for Egypt to 653 for Czechoslovakia and 1838 for Bulgaria. Great differences in internal economic relations are indicated by these widely discrepant figures. Commodity prices in terms of gold were much more compactly grouped, as is to be expected. Even here, however, the price level of one country (Egypt) was cut in half over this twenty-year period, while Chile, at the other extreme, had a price level above that of 1913.

In this survey our interest is not in index numbers of wholesale prices as mathematical abstractions. We have used such measurements because we may learn something from a study of their comparative values about the innumerable individual relations that tie national economies together. The existence of differences in average wholesale prices means that similar (and greater) differences prevail among the numerous elements of different national price structures which must be in adjustment if the international exchange of goods and of services is to be effected. The abnormalities of the War years, the chaotic currency conditions of the years immediately following and, finally, the tremendous economic disturbances that began in 1929 all tended to shatter these adjustments. During the two decades that followed 1914 national economies were exposed to the play of a wide variety of forces, differing greatly in strength and incidence from country to country. A world economic system integrated over more than forty years of peaceful development, during which

its component parts were affected by the same general forces, was shaken into separate elements. The forces playing upon these elements tended to lose their common character, becoming specific and diverse. That these elements were out of adjustment, and materially so, at the end of twenty years of stormy weather, gives no cause for wonder. The wide divergence of wholesale price levels in different countries constitutes one evidence of deep-rooted international maladjustment.

DISPARITIES OF PRODUCTION COSTS

Among the most important elements of national price structures are the various costs that enter into the production of the staple articles of international commerce. The competitive positions of industrial countries in world markets depend, obviously, upon relative production costs. The profitability of trade depends upon the relations between these costs and corresponding selling prices. When costs are out of adjustment with possible selling prices, or when the relations among cost structures in different industrial countries are suddenly disturbed, international trade is immediately affected.

Production costs are determined by a host of elements—wage rates, living costs, interest rates, the cost of materials, fuel and power, the degree of development of mechanical equipment and the technical arts, the skill of labor and many other factors. When commercial relations among the trading nations of the world have been maintained for some time a condition approaching equilibrium is attained among their cost structures, and the flow of trade is based upon these relations. Alterations are always occurring as wages, living costs, industrial productivity and other factors change in the different countries, but such alterations are slow in normal

times, and trade is adjusted to them without severe strain. From 1929 to 1933, however, changes in production costs and in the competitive positions of trading nations were pronounced. These differences, superimposed upon those already existing in 1929, modified substantially the relations upon which trade had been based. The commercial chaos of the depression period was due in no small degree to these modifications.

A general cause of changes in the relations among the elements of production cost in different countries is found in the unequal declines of price levels in these countries during the depression and in the diversity of price movements that preceded the depression; for wages and overhead charges are notoriously slow to adapt themselves to changes in the value of money. After a price rise such costs are relatively low; after a price fall they are relatively high. In general those countries that had passed through inflationary movements prior to 1929 were characterized by low production costs in that year, while countries that had passed through deflationary movements were characterized by high production costs.[4] The inequalities of price declines between 1929 and 1933 introduced further modifications into the situation.

The nature of some of the notable changes that occurred during recession in the competitive relations of different industrial countries is shown in Table 11. Here index numbers measuring changes in the value of the dollar, in terms of foreign currencies, are contrasted with index numbers of food prices, cost of living and wage rates expressed as per-

[4] Italy constituted something of an exception. Although Italy had passed through an inflationary movement during the post-War era, the currency had been stabilized at a level that was high, with reference to the domestic structure of Italian prices and their relation to world prices at the time of stabilization.

centages of corresponding measurements for the United States.

TABLE 11

INTERNATIONAL VALUES OF THE DOLLAR AND VARIOUS SERIES RELATING TO PRODUCTION COSTS

A COMPARISON OF MOVEMENTS, 1929–1932 [1]

	INDEX NUMBERS OF VALUES OF THE DOLLAR IN TERMS OF CURRENCIES OF FOURTEEN COUNTRIES		INDEX NUMBERS IN DECEMBER 1932 AS PERCENTAGES OF CORRESPONDING MEASUREMENTS FOR THE UNITED STATES (*1929=100*)		
	1929	*Dec. 1932*	*Food prices*	*Cost of living*	*Wage rates*
United States	100	100	100	100	100
Australia	100	185	116	103 [2]	94
Belgium	100	100	116	110	107 [3]
Canada	100	115	102	104	107 [3]
Czechoslovakia	100	100	139	123	120 [3]
Denmark	100	156	126	117	120
Estonia	100	100	97	99	108 [3]
France (Paris)	100	100	134	121 [2]	116 [3]
Germany	100	100	115	100	92
Italy	100	103	124	106	100
Japan	100	222	132	105	102
Netherlands	100	100	118	108	106
New Zealand	100	161	113	105	97
Poland	100	100	97	94	97
United Kingdom	100	149	131	113	111

[1] This table follows the general form of one prepared by J. B. Condliffe, appearing in his article "Exchange Rates and Prices" in the *Index* (Svenska Handelsbanken), January 1935. (A more extended discussion of the data and techniques used is given in *World Economic Survey, 1933–1934,* League of Nations, pp. 47–51.) In the present table dollar values are used, rather than sterling values, as in Condliffe's table.

The basic data of exchange rates, cost of living and food prices are given in the *Statistical Year-Book, 1934–35,* and the *Monthly Bulletin of Statistics* of the League of Nations. Wage rates are from the *International Labour Review* (articles on "Statistics of the General Level of Wages").

[2] Last quarter.

[3] Annual figure.

The interpretation of this table may be suggested with reference to the measurements given for the United Kingdom. At the exchange rates prevailing in December 1932 the dollar was worth 49 per cent more, in British pounds, than in 1929. If the relations of 1929 were to be preserved, food prices, wages and other elements of cost in the United Kingdom should also have been 49 per cent higher than the corresponding American figures, with reference to 1929 parity. In fact, food prices were only 31 per cent higher, cost of living 13 per cent higher, and wage rates 11 per cent higher.[5] These relations meant that the United Kingdom enjoyed a competitive advantage over the United States in December 1932, to the extent that these various series truly represented production costs, and in the degree that world markets were open to free competition.

The various measurements in Table 11 and the graphical representation in Figure 8 are worthy of careful study, for they summarize certain of the most significant aspects of international trading relations at a date close to the bottom of the depression. They indicate that Japan and five countries of the sterling bloc (Australia, Canada, Denmark, New Zealand and the United Kingdom) stood in relatively favorable competitive positions at the end of 1932. Wages, living costs and food prices—all important (and related) factors in costs of production—had not risen commensurately with the declines in the dollar values of their currencies. At the other extreme, with costs high relatively to dollar costs and the dollar values of their currencies, were France, Czechoslovakia, Belgium and the Netherlands. In a middle group, not far removed from the United States, stood Germany, Italy, Estonia and Poland.

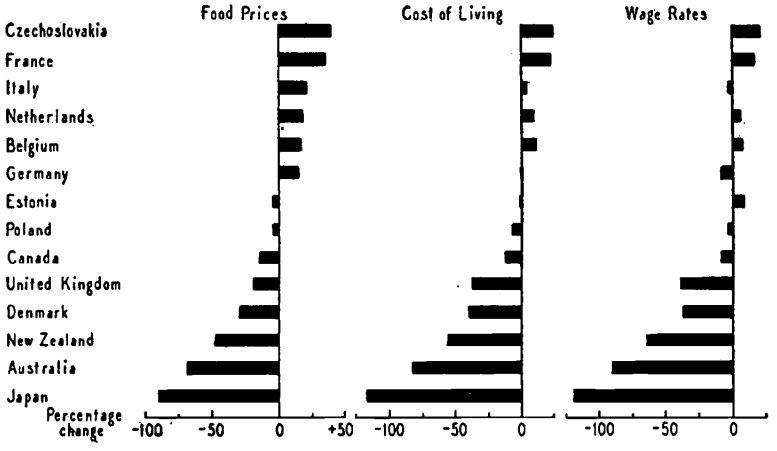
[5] Here, as in all international comparisons, we suffer from lack of full comparability among available index numbers. The results should be taken to define general relations only.

FIGURE 8

INTERNATIONAL COMPARISON OF CHANGES IN PRODUCTION COSTS, 1929–1932

Graph Showing Relative Amounts by which the Changes in Stated Series relating to Production Costs in Various Countries Exceeded or Fell Short of Changes in Corresponding Series for the United States, Account being Taken of Relative Changes in the Values of National Currencies

(*Measurements of percentage changes from 1929 to December 1932*)



The movement is shown as positive when the change in the country named exceeded the change in the corresponding series for the United States; it is shown as negative when the change was less than that in the series for the United States.

The comparisons provided by Table 11 are but samples of many that might be made. The series of prices and wages cited do not by any means measure all production costs. But they are representative of the total, in indicating how extreme were the international shifts in relative production costs between 1929 and 1932. We should note, too, that 1929 is a rather dubious standard of reference, in this respect. It is not proper to assume that production costs the world over were then in equilibrium. Some countries had already gone

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through processes of devaluation while others, including the United States and the United Kingdom, had not. Further, we may not conclude that all international competition at the end of 1932 was based upon the relative costs shown in Table 11; for such competition is between specific industries. Actual costs in individual industries may depart very widely indeed from averages representative of the entire body of a nation's industries. But the measurements given serve their purpose in suggesting the magnitude of the shifts in relative production costs among industrial countries that recession and depression had brought. This period and the decade and a half of disturbance preceding had altered channels of international trade that had been furrowed over long years of peaceful development. Old established trading relations were disrupted. The building up of new relations and their protection against dislocations through further fluctuations of exchange rates or prices was one of the major tasks set by the recession.

DISPARITIES OF COMMODITY PRICES

Some of the extreme disparities that developed in national and world price structures during the violent recession of 1920–21 persisted during the succeeding years, making deep impresses upon economic conditions. Similar disparities, many of them more severe, were opened up during the world price recession that began in 1929. Three were of exceptional importance in the world situation that developed during the recession and depression: the cleavage between the prices of goods of agricultural and of non-agricultural origin, the cleavage between the prices of raw and of processed goods, and the discrepant movements of the prices of goods intended for use in capital equipment and of goods intended for ultimate human consumption. (The last-men-

tioned class is broader than 'consumers' goods', which include only those commodities ready for final consumption.)

PRICES OF AGRICULTURAL AND NON-AGRICULTURAL PRODUCTS

High price variability is a characteristic of agricultural products. Since the volume of agricultural production is not readily adaptable to fluctuations in economic conditions, the full impact of business changes is felt by prices. The post-War weakness of agricultural prices, the world over, has already been noted. With the coming of recession in 1929 various efforts to bolster agricultural prices collapsed, declining demand for goods of agricultural origin was not matched by decreases in output, and the checking of loans to agricultural regions contributed a new element of weakness to the competitive position of farm products. Price declines of exceptional severity ensued.

The condition of agricultural producers throughout the world as a result of the depression is common knowledge and requires no extensive discussion at this point (for relevant index numbers, see Table 19). The declines in agricultural prices were most severe in the United States, Canada, New Zealand, Argentina, and Finland, all countries in which agricultural production plays an important role. In each of these countries the drop in agricultural prices was much more severe than that in general commodity prices. In certain countries, notably France and England and Wales, the declines in the prices of farm products were less than in general wholesale prices. In these countries domestic agricultural prices were not exposed to the full storm of price recession that struck the great staples entering into world trade.

PRICES OF RAW AND PROCESSED GOODS

No characteristic of the post-War economic situation was more striking or more fruitful of major consequences than the gap that was opened from 1919 to 1921 between the prices of industrial raw materials and of finished products. Reversing trends that had persisted for many years, this schism affected the course and character of international trade, the distribution of capital, the relations of debtor and creditor areas and the distribution of purchasing power among consuming groups throughout the world over a decade and more. By 1929 the gap had narrowed somewhat, but the narrowing was in some degree due to conditions that were necessarily short-lived. Raw materials remained in a weak position and the removal of certain adventitious props helped to destroy such gains as they had made. We pass to a summary of recent changes.

The recession that began in 1929 brought a growing divergence between the prices of raw materials and of manufactured goods, in world markets.[6] All the effects that followed upon the development of this situation in the early post-War years were again felt, but with a force more disastrous to world trade because certain alleviating circumstances previously present were absent after 1929. General financial and economic conditions prevented the application of methods of valorization, which had temporarily eased the earlier situation. The practical cessation of international lending removed the possibility of sustaining the depleted purchasing

[6] There were certain exceptions to this general rule. Raw consumers' goods showed much greater strength than did raw materials destined to pass through the industrial machine. Again, the margin between the prices of raw and processed goods behaved in a distinctive fashion in Germany. That country was unique during this period; it was a highly developed manufacturing country, yet it stood in a debtor relation to the commercial world in general.

power of raw material producing areas by means of new loans, and these areas had no buckler to oppose to the storm that broke upon them. Moreover, the normal international obligations of such areas, for imported manufactured goods, insurance, financial and shipping services, service upon capital loans secured from the great financial centers, had been made even heavier by excessive loans, many for unproductive purposes, during the boom years that preceded the recession. By a cruel conjuncture of circumstances, the price schism was reopened at a time when raw material producers were exposed on every flank to adverse forces.

Nor were industrial producers in much better case. Most of the conditions that helped, earlier, to protect many industrial elements (particularly in the United States) from the adverse effects of the price schism, while preserving to them the advantages that it offered, were absent from 1929 to 1933. Installment selling was severely curtailed. The great expansion of capital exports that helped to open foreign markets to American producers in the first post-War decade was not duplicated in the second decade. Fortuitous profits from speculation were no longer available to swell buying power. The impact upon the industrial structure of the greatly reduced purchasing power of raw material producers was apparent at once in increasing unemployment. (Other elements, of course, contributed also to the volume of unemployment.) The consequent reduction of the purchasing power of industrial workers reacted to intensify the difficulty and to swell still further the number of unemployed. Depleted purchasing power and misery on the one hand, unemployment and misery on the other—these were the concomitants of the sharp widening of the schism that separated the prices of raw materials from those of finished goods.

One arresting fact about this great price gap that was opened, or reopened, between 1929 and 1933 is that it ap-

peared, internationally, as a division between two great groups of countries. In most countries today both extractive and manufacturing industries are found, but usually one type of industry predominates and determines the general character of the national economy. By and large, the countries of western Europe constitute a distinctively industrial area, while the rest of the world, excluding small areas in Asia and the industrialized regions of North America, is devoted primarily to the extraction of raw materials and the cultivation of crude foodstuffs. As we have noted, the price schism of the first post-War recession and ensuing years opened up a definite cleavage between industrial and colonial areas, and this cleavage, together with related circumstances connected with the movements of capital, constituted a dominant feature of the world economic scene during this period. The same cleavage between manufacturing and raw material producing areas became an outstanding feature of the depression that began in 1929.[7]

This condition is clearly revealed by measurements of the net barter terms of trade of industrial countries and of countries exporting raw materials and importing industrial products (Table 18). In 1932 the United Kingdom gave 13 per cent less of exports, by volume, than in 1929, and 24 per cent less than in 1913, in exchange for a fixed quantity of imports.

[7] Every cyclical depression, of course, has opened up a similar cleavage, since the prices of raw materials are far more sensitive to changes in business conditions than are the prices of manufactured goods. But in the present case the cleavage differs so markedly from that usually developing in the course of business cycles that it is not improper to use the term 'schism'. The differences between the break here in question and that usually found in business depressions are differences of magnitude, of duration and, fundamentally, of background. For the decade preceding the 1929 break was a decade of weakness in raw material prices. The schism of 1929–33 was virtually an intensification of a condition that had been present in the world economy since the ending of the War.

The reason, of course, is that the prices of imported foodstuffs and materials had fallen much more than had the average price of exported industrial products. The trading relations of France, Germany and the United States with the rest of the world were altered in similar fashion. In 1932 these three countries were giving, respectively, 13, 31 and 16 per cent less than in 1929 in exchange for constant quantities of imports. At the other extreme are the colonial areas, selling foodstuffs and raw materials in exchange for industrial products. In 1932 the terms of exchange had so altered for New Zealand that it was forced to give 58 per cent more, in volume, than in 1929, in return for a fixed quantity of imports. For the Dutch East Indies the figure was 46 per cent, for Argentina 52 per cent. Here in accentuated form was the same great cleavage that had been opened up between 1919 and 1921.

PRICES OF INVESTMENT EQUIPMENT AND OF GOODS FOR HUMAN CONSUMPTION

In the main, the price behavior of major commodity groups during the recession and depression initiated in 1929 resembles that observed in previous cyclical recessions, although in the most recent depression movements were more extreme both in magnitude and duration. One important difference is to be noted, however. In pre-War business cycles the prices of those particular producers' goods that are intended for use in the construction of capital equipment fell as rapidly as the general price level, or more rapidly. This facilitated the resumption of expenditures on new capital equipment and on the repair of old capital equipment during the later stages of depression and the early stages of revival, and thus stimulated general business recovery. During the latest depression, as in the period preced-

ing the recession of 1929, the prices of goods entering into capital equipment remained relatively high.

In most industrial countries for which we have appropriate records depression prices of capital equipment were relatively higher than the prices of goods intended for ultimate human consumption. In Germany industrial finished goods intended for the use of producers were only 17 per cent lower in price in January 1933 than in 1929; industrial finished goods for sale to final consumers were 35 per cent lower. In Canada producers' equipment in February 1933 was 8 per cent lower in price than in 1929; consumers' goods were 27 per cent lower. In the United States, in February 1933, producers' goods intended for use as capital equipment were 27 per cent lower than in 1929; consumers' goods were 35 per cent lower. This situation is connected with the general raw-processed schism already discussed. Those raw materials which were weakest in price were, in general, agricultural products intended for human consumption. Furthermore, the effects of control through cartels, agreements and combinations of various sorts have been felt most directly by goods intended for use in capital equipment. It is probable, too, that various fixed and relatively intractable elements of cost played more important parts in the production of goods of the capital equipment type than in the output of consumption goods. The net result of all these circumstances (and of other economic conditions) was that in the recent depression capital equipment became relatively more expensive, and that its production was retarded. This tended to remove one of the factors usually facilitating a revival of economic activity after a severe depression.

It is notable that these price relations were reversed in Japan. In June 1932 the prices of Japanese producers' goods were 48 per cent lower than in 1929; the prices of consumers' goods were 30 per cent lower. Here was a condition of very

great importance in facilitating, if not stimulating, the early industrial recovery of Japan.

SOME CONSEQUENCES OF DISLOCATIONS IN THE WORLD PRICE STRUCTURE DURING THE DEPRESSION

The collapse of prices, with resulting dislocations in the world price structure, was but one aspect of the general economic breakdown of the period 1929–33. In a situation marked by a tremendous reduction in the volume of production and trade, by world-wide unemployment, by virtual cessation of the international flow of investment funds, by widespread dislocation of the foreign exchanges, it would be quite unjustifiable to look upon the price collapse as the one factor responsible for all other economic difficulties. Yet we have argued above that, be the first causes what they may, the price relations created by such a general collapse as that of 1929–33 become themselves active factors in the economic situation. The very conditions that prevent prices from reflecting and promptly adapting themselves to the violent economic changes accompanying a major economic recession initiate new chains of consequences. Some of these, which are in part at least resultants of schisms and disparities set up within the structure of world prices, are here summarized.

Sharp alterations of price relations bring in their wake two major (and related) consequences—a shift of purchasing power from group to group and, usually, a disturbance of the balance that may have prevailed between the volume of production and the available purchasing power.[8] When the distribution of purchasing power upon the basis of which an

[8] These results would not follow, of course, if the effects of the price changes upon purchasing power were precisely offset by variations in the volumes of goods produced or services rendered by the economic groups concerned. But such nicely balancing changes are not found in practice.

economic system has previously functioned is thus suddenly altered, a violent drop in the volume of goods exchanged may be expected. (Curtailed purchasing power is immediately reflected in reduced demand. Enhanced purchasing power, real or potential, is likely to be effective only with a time lag.) This is precisely what happened when the recent price collapse occurred.

The purchasing power of raw material producing areas was reduced, even before the collapse of raw material prices, by the diminution of foreign loans, a process that began in 1928. When to this weakness was added the effect of rapidly declining prices of their major products, the power of such colonial areas to purchase industrial products was very seriously impaired. In Table 12 an attempt is made to appraise roughly the losses in aggregate purchasing power due to these two factors, for selected colonial areas.

TABLE 12

ESTIMATED CHANGES IN THE AGGREGATE PURCHASING POWER IN WORLD MARKETS OF FIVE RAW MATERIAL PRODUCING AREAS, 1929–1933 [1]

	EXPORTS			IMPORTS			
	Physical volume	Gold price (*per unit*)	Aggregate gold value	Gold price (*per unit*)	AGGREGATE PURCHASING POWER OF EXPORTS IN FOREIGN MARKETS	AGGREGATE GOLD VALUE OF EXPORTS CORRECTED BY NET BALANCE OF CAPITAL MOVEMENTS	AGGREGATE PURCHASING POWER OF EXPORTS CORRECTED BY NET BALANCE OF CAPITAL MOVEMENTS
1929	100	100	100	100	100	100	100
1930	95	75	71	93	76	73	78
1931	104	52	54	77	70	49	64
1932	107	42	45	60	75	36	60
1933	109	39	42	52	81	33	63

[1] The figures in this table are aggregates, derived from data relating to the Union of South Africa, Argentina, Dutch East Indies, Australia and New Zealand. Below are given records for the individual countries, as compiled

(*Footnote to Table 12 continued on p. 188*)

Between 1929 and 1933 the gold value of the exports of the five raw material exporting countries here represented was reduced 58 per cent. This decline was due entirely to a drop in the average gold price, per unit, of the goods exported; for the volume of exports in 1933 was greater than that of 1929. Added to the loss in purchasing power resulting from this price decline was the loss due to a tremendous drop

(Footnote to Table 12 continued)
by the Economic Intelligence Service of the League of Nations (*Review of World Trade, 1934; Statistical Year-Book, 1934–35; Balance of International Payments, 1934*).

	EXPORTS			APPROXIMATE VALUE OF CAPITAL LOANS, IN MILLIONS OF FORMER U. S. GOLD DOLLARS [NET INWARD (+) OR OUTWARD (—) BALANCES]		
	Physical volume	Gold price (*per unit*)	Aggregate gold value	Long-term	Short-term	Total
Union of South Africa						
1929	100	100	100	—8.6	+73.6	+65.0
1930	101	85	86	+48.2	—16.6	+31.6
1931	91	80	73	+1.9	+17.1	+19.0
1932	98	73	72	+22.2	—97.7	—75.5
1933	91	75	67	—6.9	—23.9	—30.8
Argentina*						
1929	100	100	100	+48.7	—10.9	+37.8
1930	72	79	57	+175.7	—8.3	+167.4
1931	100	47	47	—5.9	+7.3	+1.4
1932	92	39	36			
1933	83	38	31			
Dutch East Indies						
1929	100	100	100	—24.9	+56.7	+31.8
1930	117	68	80	+31.8	lacking	+31.8
1931	109	47	52	+13.7	+18.5	+32.2
1932	104	36	38	+11.3	+8.4	+19.7
1933	90	36	32	+13.7	+6.0	+19.7
Australia**						
1929	100	100	100			+169.9
1930	95	75	71			+13.6
1931	112	46	52			—53.3
1932	134	33	45			—52.5
1933	173	29	51			—78.9

in short- and long-term loans. Such loans, which amounted to over 300 million dollars in 1929, had fallen to zero by 1931, and had taken on negative values in 1932 and 1933. The flow of capital was outward. Capital movements do not necessarily have a physical counterpart in the movement of goods, but this shift in the movement of short- and long-term funds contributed in no small degree to the weakness of raw material producing areas. Falling exports and declining capital loans served, together, to reduce the total sum (in terms of gold dollars) available to these five countries in 1931 for use in foreign markets by something over 50 per cent of the 1929 figure. By 1932 the decline amounted to 64 per cent,

(Footnote to Table 12 concluded)

	EXPORTS			APPROXIMATE VALUE OF CAPITAL LOANS, IN MILLIONS OF FORMER U. S. GOLD DOLLARS [NET INWARD (+) OR OUTWARD (—) BALANCES]		
	Physical volume	Gold price (*per unit*)	Aggregate gold value	Long-term	Short-term	Total
New Zealand***						
1929	100	100	100	—11.9	+30.6	+18.7
1930	103	77	79	+39.2		+39.2
1931	104	53	54	+20.4	—13.0	+7.4
1932	117	37	42	—4.1	+7.4	+3.3
1933	135	30	41	—10.4	—60.1	—70.5

* Data on capital loans are for the year October 1–September 30.

** Data on capital loans are for the year July 1–June 30.

*** Data on capital loans are for the year April 1–March 31.

The index numbers of the gold prices of imports, as given in Table 12, are averages of index numbers for the individual countries; for 1932 and 1933, data for Australia were not available, and estimates for that country were based on data for New Zealand.

Data on capital movements were not available for Argentina for 1932 and 1933. Estimates for these years were based upon data for the four other countries.

The figures in the three columns relating to exports are derived independently, hence all items in column (3) are not consistent with corresponding items in columns (1) and (2). In general, the discrepancy is small.

and by 1933 to 67 per cent.[9] If we measure from 1929 as base, and take rough account of the fall in the average prices of goods imported by these countries,[10] we find that reduced exports and falling capital loans together would account for a drop approximating 40 per cent in their purchasing power in foreign markets, that is, in the physical volume of manufactured goods purchasable by the funds coming from these two sources. (Part of these credits in foreign markets would, of course, be used in debt service and for other purposes not directly involving the purchase of goods.)

These records indicate how substantial was the reduction in the flow of manufactured goods from industrial areas to certain important raw material producing areas, and how important was the part played by price changes in this decline. They reveal, also, the effect of the stoppage of capital movements on the aggregate purchasing power of raw material producing areas. For the world at large a decline in the volume of international trade in raw materials accompanied the changes we have noted, although it did not approach the drop in the volume of manufactured goods exported by industrial countries.[11] In international as in domestic trade the prices

[9] Other items in the balance of payments of these countries affect their purchasing power in foreign markets. The above figures define changes due to the influence of two important factors which were subject to considerable variation over this period.

[10] The following index numbers measure changes in the average gold prices of goods imported by these five countries.

	1929	*1930*	*1931*	*1932*	*1933*
Union of South Africa	100	93	81	62	42
Argentina	100	88	71	60	57
Dutch East Indies	100	94	74	61	51
Australia	100	98	81		
New Zealand	100	95	77	58	50

(*Review of World Trade, 1934*, League of Nations, pp. 76–83)

[11] The following estimates, from the *Review of World Trade, 1934* (p. 16) issued by the Economic Intelligence Service of the League of Nations, indi-

of manufactured goods were maintained, relatively to the prices of foodstuffs and other raw materials, and the rough equalization of the aggregate values of goods exchanged thus entailed a correspondingly greater decline in the volume of manufactured goods entering into trade. In addition, of course, the trade in manufactured goods among industrial countries suffered great losses.

A large part of the decline in trade between raw material producing areas and industrial areas may be attributed to the effect of price disparities and the reduced volume of foreign lending upon the purchasing power of colonial areas, and to the effect of unemployment and wage reduction upon the purchasing power of industrial areas. In trade between industrial areas direct price disparities play a less important role. Here the reduced purchasing power of industrial workers was a serious depressant. To these factors must be added the important retarding influence of new and higher tariff barriers. These, and the accompanying development of trade restrictions, quotas and similar impediments to the movement of goods in customary channels, intensified the depressing influence of price disparities and unemployment and served still further to reduce the purchasing power of consumers generally.

PROBLEMS OF READJUSTMENT AND RECOVERY

World history in modern times has been a record of steadily expanding international trade resting, in large part, upon

cate the relative magnitudes of the changes in the volume of trade of three classes of commodities and in corresponding unit prices:

	FOODSTUFFS		RAW MATERIALS		MANUFACTURED ARTICLES	
	Quantum	Per unit prices, in gold	Quantum	Per unit prices, in gold	Quantum	Per unit prices, in gold
1929	100	100	100	100	100	100
1932	90	52	81	45	58	64

the exploitation of the natural advantages of different economic areas. (Accident and priorities of exploitation played rather important roles, of course, in the regional division of labor.) At the bottom of the spiral of recession in world commerce and deflation of world prices, in 1932 and 1933, the world faced a major question: Were the advantages of regional economic specialization to be fully exploited in the future or, in considerable part, foregone? In another form, this was the question whether national or international trade was to develop, relatively to the other.[12] The World War and the economic and political difficulties growing out of it posed this question for more conscious consideration, perhaps, than it had ever received before.

The alternative lines of development, if clearly distinguished, involve sharply different economic policies. Nationalistic development would be expected to proceed upon the basis of maintained quantitative and other restrictions upon imports, a slow shifting of national productive energies to new channels and a correspondingly slow absorption of unemployed workers and capital, the continuation of world trade in low volume, relatively to world production, and the persistence of living standards (as measured in terms of real wages and incomes) below those that would be supported by a full utilization of the world's productive resources. International price and cost relations based upon earlier conditions of freer trade would no longer prevail. Price and cost 'disparities' (in relation to earlier standards) would persist. The international price system of the past, with national price and cost structures standing in working relations one with another and subject to mutual modification and read-

[12] The question has been put in this form and its implications developed in a paper by John H. Williams on "The World's Monetary Dilemma—Internal versus External Monetary Stability" (*Proceedings of the Academy of Political Science*, April 1934, pp. 62–68).

justment, would undergo a substantial change in character.[13]

Readjustment and recovery to be effected through the restoration of a working international organization would require quite different foundations. Some lowering of the barriers to world trade, particularly of those quantitative restrictions that served as absolute impediments to equilibrium through price readjustment, was essential. Some restoration of the international flow of capital was, if not a necessary condition, at least of very considerable importance. Finally, and of greatest weight, there were necessary the interrelated price and exchange readjustments that would permit the reconstruction on a stable basis of a world price system, with national price and cost structures standing in more effective working relation than was possible under the disturbed conditions of the depression period. Such reconstruction of a world price system would not, of course, mean the restoration of the precise relations that prevailed prior to the recession. Many deep-seated and irreversible changes had occurred, and reconstruction would involve adaptation to these. But if the path towards a recovery of international trade were to be taken, it would be an adaptation that would facilitate and not impede regional division of labor and the growth of world commerce.

Looking forward, from the demoralized state of world trade and world intercourse prevailing in 1932, after three years of recession, these two clear alternatives were open, but it was not to be expected that either would be followed rigorously. In tracing the events of the succeeding years we shall be concerned with the character of the compromise actually effected between nationalistic commercial development and an international economic organization.

[13] A lucid exposition of the effects upon price and cost relations of quantitative restrictions upon international trade is given in "Exchange Rates and Prices," by J. B. Condliffe, in *Index* (Svenska Handelsbanken), January 1935.

World Price Movements in Recovery

The general character of world price movements since the checking of recession in 1932 and 1933 has been indicated in the opening pages of this chapter. As various countries broke loose from the gold standard the declines in their domestic prices were stopped. In many instances fairly substantial price advances have been scored, in terms of national currencies. The downward pressure on gold prices persisted, but even here the lift of domestic price levels has been sufficient to advance gold equivalents somewhat in several countries. The movements of both sets of prices from 1929 levels to the depression lows, and the subsequent advances, are graphically portrayed in Figure 9. The extent of the advance from the low point is indicated, for each country, by the white area on the bar.

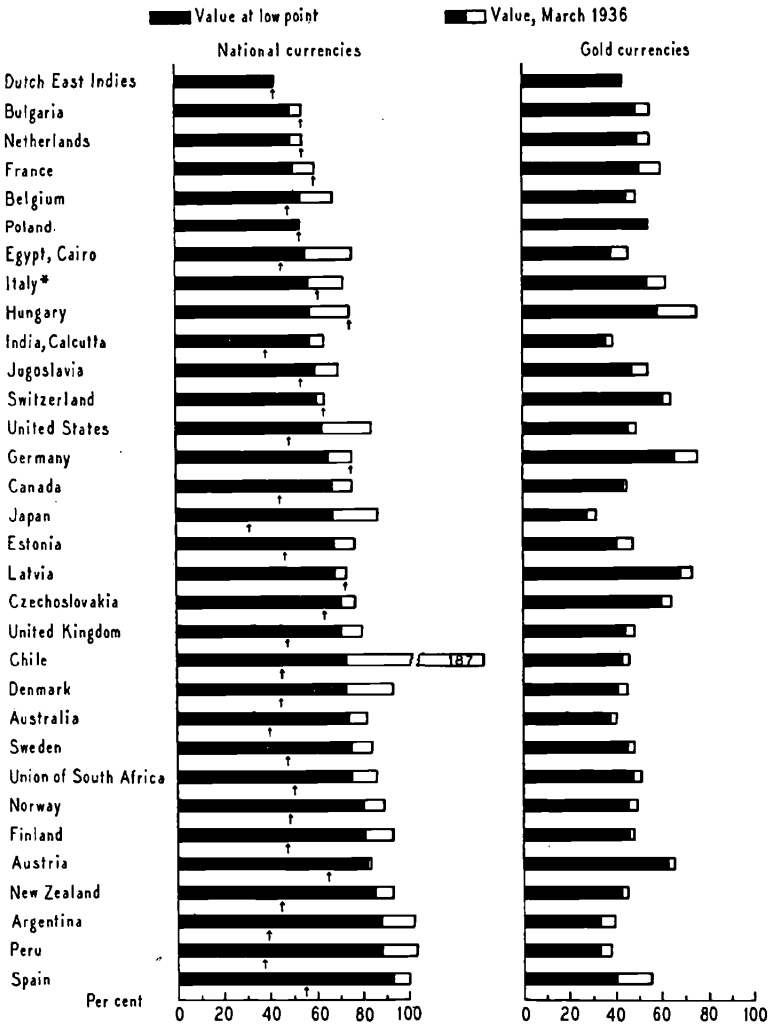
The degree of divergence among national price levels, even in terms of gold values, is notable. The low points, with reference to 1928 or 1929 high values as 100, ranged from 29 for Japan to 64 for Germany. Some advances from depression lows were scored in gold price levels to the spring of 1936. In the main, these were inconsiderable. The significance of certain of these movements is clouded by the presence of official control over foreign exchanges. For the world as a whole the recession of gold prices of commodities had been checked by 1936 but substantial recovery was still to come.

The bars relating to the movements of price levels in terms of national currencies tell a somewhat more encouraging story. Here, except in a few countries, the levels of the depression lows were definitely left behind. Only the bars relating to Poland and the Dutch East Indies show no white areas. In Argentina, Peru and Chile, 1929 price levels were

FIGURE 9

WHOLESALE PRICES IN THIRTY-TWO COUNTRIES, 1929–1936
INDEX NUMBERS IN TERMS OF NATIONAL AND GOLD CURRENCIES

(*1929=100*)



The arrows in the section of the diagram relating to national currencies indicate the relative levels of gold prices in March 1936. * To October 1935.

passed, in the advance. The United States, with a gain to March 1936 of 33 per cent above the depression low, and Japan with a gain of 30 per cent, are among the countries having made the greatest advances. In the United Kingdom wholesale commodity prices advanced 13 per cent.

The price gains of recovery, in terms of the various national currencies, are to be appraised with reference to gold price levels, corresponding to current exchange rates. The differences between the gold price levels as of March 1936 (indicated by the arrows in the diagram) and the price levels in terms of national currencies may be noted on the chart. There is a rough inverse relationship; high national price levels are associated with low gold price levels, and low national price levels with high gold price levels. But there is far from a simple and invariant relationship between depreciation, as measured by exchange rates, and domestic price levels. In general, the advances of domestic prices have not been commensurate with the depreciation of national currencies. Thus in the United States a reduction of 41 per cent in the gold value of the dollar was followed by an advance, to April 1936, of only 33 per cent in average wholesale prices. (The advance is measured from the level prevailing in February 1933. Suspension of the gold standard dates from April 19, 1933.) A rise commensurate with the reduction in gold value would have amounted to 69 per cent. Similarly, quoted rates on the pound sterling, as of April 1936, represented a decline of 40 per cent in its gold value. An equivalent price rise would have amounted to 66 per cent. The actual advance in wholesale prices from the date of departure from the gold standard to April 1936 amounted to 13 per cent. There is, of course, no reason to expect a rigid relationship between prices and the gold value of the monetary unit under contemporary currency and banking conditions, but the highly imperfect relationship in these

countries is worthy of note. Indeed, there is evidence that currency depreciation by important commercial nations has exerted deflationary pressure outside their borders, perhaps in greater degree than it has exerted inflationary pressure domestically. For the reduction of gold prices, which depreciation entails, tends to push world gold prices downward, and countries still on the gold standard feel the full force of this push.[14]

The Structure of World Prices in 1936

We have seen, in the early part of this chapter, that the slow process of rebuilding a world trading organization after the disruptive period of War and post-War disturbance was violently checked in 1929. The innumerable cost and price relations which condition the actual exchange of goods and services were broken or seriously distorted during the recession. Nationalistic political considerations intensified economic factors in creating barriers to economic intercourse and checking the flow of goods in international trade. As a result of the play of these various forces the physical volume of world trade was reduced 26 per cent between 1929 and 1932.

In the brief previous survey of the situation existing at the low point of the depression and in the early months of 1936 attention was drawn to the disparate movements of prices and costs, and to some of their economic consequences. We turn now to the changes occurring during the period of general world recovery.

DISPARITIES OF PRICE LEVELS

In following the movements of price recovery it is well to compare situations at specific dates, although the depression

[14] See *Commercial Banks, 1929–1934* (League of Nations, Geneva, 1935).

lows of different countries did not coincide. For convenience, February 1933 may be taken as a standard date at which to compare the price levels of depression. March 1936 will serve as a bench-mark in surveying the changes of recovery.

From 1929 to February 1933 the changes in wholesale price levels, in terms of the national currencies of the thirty-two countries covered in Table 13, ranged from a drop of 50 per cent in the Dutch East Indies to a rise of 79 per cent for Chile. The median decline (unweighted) was 30 per cent. The degree of divergence of national price levels during

TABLE 13

WHOLESALE PRICE INDEX NUMBERS, THIRTY-TWO COUNTRIES, 1929—MARCH 1936

(In terms of national and gold currencies: 1929=100)

	NATIONAL CURRENCIES			GOLD VALUES		
	Average 1929	*Feb. 1933*	*Mar. 1936*	*Average 1929*	*Feb. 1933*	*Mar. 1936*
Dutch East Indies [1]	100	50	43	100	50	43
Netherlands [1]	100	52	55	100	52	55
Bulgaria [2]	100	53	55	100	53	55
Belgium [2]	100	60	68	100	60	49
India, Calcutta	100	61	64	100	43	39
Italy [2]	100	61	72 [4]	100	59	66 [4]
Egypt, Cairo	100	62	76	100	44	46
Poland [1]	100	63	54	100	63	54
United States	100	63	84	100	63	49
France [1]	100	64	60	100	64	60
Switzerland [1]	100	64	64	100	64	64
Canada	100	66	76	100	56	45
Germany [2]	100	66	76	100	66	76
Jugoslavia [2]	100	68	70	100	52	54
Hungary [2]	100	69	75	100	69	75
Estonia [2]	100	70	77	100	70	47
Latvia [2]	100	70	73	100	70	73
Czechoslovakia [2]	100	72	77	100	72	64
United Kingdom	100	72	80	100	51	48
Australia	100	74	82	100	41	40
Union of South Africa	100	75 [3]	86 [5]	100	53 [3]	51 [5]

TABLE 13 (*cont.*)

WHOLESALE PRICE INDEX NUMBERS, THIRTY-TWO COUNTRIES, 1929—MARCH 1936

	NATIONAL CURRENCIES			GOLD VALUES		
	Average 1929	*Feb. 1933*	*Mar. 1936*	*Average 1929*	*Feb. 1933*	*Mar. 1936*
Sweden	100	76	84	100	51	48
Norway	100	81	89	100	53	49
Austria [2]	100	82	83	100	66	65
Japan [2]	100	82	87	100	37	32
Denmark [2]	100	83	93	100	47	45
New Zealand	100	88	93	100	50	45
Argentina [2]	100	89	102	100	54	39
Finland	100	91	93	100	54	48
Peru	100	92	103	100	40	38
Spain [2]	100	96	100	100	54	55
Chile [2]	100	179	187	100	89	46
Median						
Unweighted	100	70	77	100	54	49
Weighted [6]	100	66	80	100	59	49
Index of dispersion of price levels						
Unweighted		13.6	12.3		12.5	12.8
Weighted [6]		6.8	7.5		11.0	12.2

SOURCE: League of Nations: *Monthly Bulletin of Statistics*

[1] Countries on gold standard, March 1936. [2] Official foreign exchange control.
[3] January 1933. [4] October 1935. [5] April 1936.
[6] Weights are based upon relative importance of foreign trade in 1929.

this period is indicated by an index (unweighted) of 13.6 per cent.[15] In terms of gold values the median decline was greater, amounting to 46 per cent. The index of dispersion was slightly lower than that for domestic price levels measured in the various national currencies. Some of the implications of these wide disparities have already been suggested.

From February 1933 to March 1936 the median of the

[15] This is half the range between the two quartiles, expressed as a percentage of the median.

thirty-two wholesale price indexes, in national currencies, rose about 10 per cent. The dispersion of price levels was only slightly reduced; disparities of national price levels remained wide in 1936.

If we reduce our measurements to terms of a common denominator, gold, we note a continuation of the price drop from 1933 to 1936, with the median index of gold prices in March 1936 less than one-half the 1929 level. The index of relative dispersion of gold price levels rose slightly with recovery; between February 1933 and March 1936 there was an increase rather than a reduction in the disparities the recession had brought among national price levels, if we use the 1929 situation as criterion.

The picture is altered somewhat if we use the various weighted measurements of average price change and of dispersion. Notably, the price rise from 1933 to 1936 in terms of domestic currencies is much greater, 21 per cent as against 10 per cent. This means that price gains were greatest among the commercially important countries. Dispersion of price levels, on the other hand, is less when weights are used. It is significant that the dispersion of commodity prices in terms of gold, from 1929 to 1933 and to 1936, was greater than the dispersion of prices in terms of national currencies. Standards for international trading relations were badly shattered among the leading countries.[16]

[16] The various national index numbers brought together in Table 13 are not fully comparable, since they differ in respect of number and kind of commodities included and in method of construction. A. L. Bowley and K. C. Smith have constructed a series of index numbers of wholesale prices, for eleven countries, that are similar in composition and in distribution of weights. Though the number of commodities included in each index is not large (about 35), the comparability of these measurements gives them especial significance, in the tracing of international price movements. Recession and recovery in these index numbers, in terms of national currencies,

Price index numbers on the 1929 base relate to a standard of somewhat uncertain economic significance. There is no reason to believe that the relations of that year represent a state of equilibrium. Indeed, no post-War year would serve, if this test were applied, and pre-War years are so far removed from the situation immediately preceding the 1929 recession that they constitute unsatisfactory criteria. Yet it is desirable that the changes of the period 1929–36 be viewed against a standard other than that of 1929. Table 14 facilitates such a view.

In terms of national currencies wholesale price levels in the twenty-nine countries here represented scored a median advance (unweighted) of 47 per cent between 1913 and 1929. Recession carried the median level down to a point 6 per cent above that of 1913, while recovery to March 1936 brought an advance to 18 per cent above. The employment of gold as a common denominator gives a different picture. Wholesale price levels in gold terms advanced 37 per cent

are shown below. For the present purpose the bases of these index numbers have been shifted from 1925, as originally computed, to 1929.

	1929	*February 1933*	*March 1936*
Belgium	100	58	64
Canada	100	55	68
France	100	65	63
Germany	100	66	75
Italy	100	64	*
Netherlands	100	48	52
New Zealand	100	76	84†
Sweden	100	70	84
Union of South Africa	100	73**	80†
United Kingdom	100	68	75
United States	100	50	74

* Not available. ** January 1933. † February 1936.

The Bowley-Smith index numbers are published currently in the *Bulletin* of the London and Cambridge Economic Service.

from 1913 to 1929. Early in 1933 the median index was 26 per cent below the 1913 standard; by March 1936 this had been carried to a level 33 per cent below. (Weighted and unweighted averages show the same general movements.) With only one exception (Germany) average gold prices of commodities at wholesale in 1936 were lower than in 1913.

A considerable degree of divergence among national price levels is to be expected, over a period of two decades. It is important, however, to determine whether the changes of recent years have brought an accentuation or a reduction of the disparities among price levels that developed during the War and the immediate post-War years. Unweighted measures of dispersion indicate a sharp divergence of national price levels from 1929 to 1933, a very slight reduction of this divergence by March 1936. Re-valuation occurred in a number of countries, and the various domestic price levels and price structures stood far apart indeed. Weighted measurements show the same changes, in less pronounced form. When prices are reduced to gold terms, on the 1913 base, the unweighted measurements indicate no material change in dispersion between 1929 and 1933, a considerable advance during the three years following. The weighted measure-

TABLE 14

WHOLESALE PRICE INDEX NUMBERS, TWENTY-NINE COUNTRIES, 1913—MARCH 1936

(In terms of national and gold currencies: 1913=100)

	NATIONAL CURRENCIES				GOLD VALUES			
	Average 1913	*Average 1929*	*Feb. 1933*	*Mar. 1936*	*Average 1913*	*Average 1929*	*Feb. 1933*	*Mar. 1936*
Egypt (Cairo)	100 [3]	116	72	83	100 [3]	116	51	53
Dutch East Indies [1]	100	148	74	64	100	148	74	64
Netherlands [1]	100	142	74	78	100	142	74	78
Estonia [2]	100	117	82	90	100	117	82	55
Hungary [2]	100	121	83	91	100	104	72	79

TABLE 14 (*cont.*)

WHOLESALE PRICE INDEX NUMBERS, TWENTY-NINE COUNTRIES, 1913—MARCH 1936

	NATIONAL CURRENCIES				GOLD VALUES			
	Average 1913	*Average 1929*	*Feb. 1933*	*Mar. 1936*	*Average 1913*	*Average 1929*	*Feb. 1933*	*Mar. 1936*
Latvia [2]	100	120	84	87	100	120	84	87
India (Calcutta)	100 [3]	141	86	91	100 [3]	158	68	62
United States	100	137	86	114	100	137	86	67
Union of South Africa	100	116	87 [4]	100 [6]	100	116	62 [4]	60 [6]
Switzerland [1]	100 [3]	141	90	91	100 [3]	141	90	91
Germany [2]	100	137	91	104	100	137	91	104
Canada	100	149	99	113	100	149	83	67
United Kingdom	100	136	99	110	100	136	70	66
Austria [2]	100 [3]	130	106	107	100 [3]	93	62	61
Sweden	100	140	106	118	100	140	72	67
Argentina [2]	100	128	113	130	100	125	67	49
Norway	100	149	121	132	100	149	79	73
Australia	100	166	122	137	100	166	69	66
Denmark [2]	100	150	124	139	100	150	71	68
New Zealand	100	147	130	137	100	147	73	66
Japan [2]	100	166	136	144	100	155	57	46
Spain [2]	100	168	162	168	100	136	73	75
Peru	100	186	172	192	100	156	62	60
Italy [2]	100	481	293	348 [5]	100	131	78	87 [5]
Chile [2]	100	192	345	360	100	118	105	55
France [1]	100	627	404	376	100	127	82	76
Belgium [2]	100 [3]	851	512	578	100 [3]	124	75	61
Czechoslovakia [2]	100 [3]	913	653	703	100 [3]	134	96	86
Bulgaria [2]	100 [3]	3447	1838	1910	100 [3]	145	76	79
Median								
Unweighted	100	147	106	118	100	137	74	67
Weighted [7]	100	137	99	114	100	137	78	67
Index of dispersion								
Unweighted		12.9	37.0	35.2		9.2	9.1	13.1
Weighted [7]		10.6	19.2	15.4		2.6	10.3	7.5

SOURCE: League of Nations, *Monthly Bulletin of Statistics*

[1] Countries on gold standard, March 1936. [2] Official foreign exchange control.
[3] 1914. [4] January 1933.
[5] October 1935. [6] April 1936.
[7] Weights based upon relative importance of foreign trade in 1929.

ments show a remarkably small degree of divergence of gold price levels in 1929, on the 1913 base (a somewhat fortuitous result, due to the fact that the price indexes for the three most heavily weighted countries—United States, United Kingdom and Germany—were within one point of one another in 1929). Thereafter the divergence increased materially with depression, declined somewhat from 1933 to 1936.

It is a fair assumption that unequal movements of national price levels alter adjustments of prices and costs on which international trade is based. These movements may open some opportunities for profitable trade, but the net effect is probably adverse. The various measurements of dispersion just reviewed indicate a definite increase of divergencies from 1929 to 1933, a movement that was particularly pronounced in terms of national currencies. Thereafter, with general recovery, there was some lessening of disparities, though the picture as a whole shows no substantial improvement for the commercial world in general. International price divergencies remained wide in 1936, whether the standard of reference be 1929 or 1913. There is nothing sacred about these standards, it is true, except that each represents conditions under which trade had been carried on in considerable volume. The movements of recovery, through the early months of 1936, were far from restoring either set of conditions. But we must consider other types of evidence bearing on international price and cost relations.

DISPARITIES OF PRODUCTION COSTS

Lagging adaptation of various prices and wage rates to alterations in the value of money may lead to rather wide differences in relative production costs during a period of rapid and unequal variations in price levels and in exchange rates. Since we have no direct and comparable measure-

ments of production costs in different industrial countries we are obliged to estimate relative changes. This was done at an earlier point for the period of recession. There we found that in December 1932 Japan and five countries of the sterling bloc stood in relatively strong competitive positions, since wages, food prices and other living costs had not risen by amounts commensurate with the declines in the external values of their currencies. France, Czechoslovakia, Belgium and the Netherlands constituted a relatively high cost group; the United States and a small number of European countries were in a middle position. We may now trace the changes brought by three years of currency depreciation, continuing decline in gold prices, and varying price advances in terms of national currencies (Table 15).

The changes in the international values of the dollar resulting from American departure from the gold standard are revealed by a comparison of the entries for December 1932 and for December 1933. In only four countries (Australia, New Zealand, Denmark and Japan) was the 1933 value above that of 1929. But we may pass directly to a study of the 1935 situation. As of December in that year the value of the dollar was higher than in 1929 in the currencies of four countries (Australia, Denmark, Japan and New Zealand), equal to the 1929 value in the currency of one country (Canada), and below the 1929 values in the currencies of nine countries (Belgium, Czechoslovakia, Estonia, France, Germany, Italy, Netherlands, Poland and the United Kingdom). We are here concerned, however, not with changes in the relative values of these various national currencies but with the degree to which food prices, living costs and wages may have adapted themselves to these shifting relations among national currencies. The movements from 1929 to March 1936 are shown graphically in Figure 10.

Japan is outstanding among the countries in a strong com-

TABLE 15

INTERNATIONAL VALUES OF THE DOLLAR AND VARIOUS SERIES RELATING TO PRODUCTION COSTS

A COMPARISON OF MOVEMENTS, 1929–1935 [1]

	INDEX NUMBERS OF VALUES OF THE DOLLAR IN TERMS OF CURRENCIES OF FOURTEEN COUNTRIES					INDEX NUMBERS AS PERCENTAGES OF CORRESPONDING MEASUREMENTS FOR THE UNITED STATES														
						FOOD PRICES					COST OF LIVING					WAGE RATES				
	1929	*Dec. 1932*	*Dec. 1933*	*Dec. 1934*	*Dec. 1935*	*1929*	*Dec. 1932*	*Dec. 1933*	*Dec. 1934*	*Dec. 1935*	*1929*	*Dec. 1932*	*Dec. 1933*	*Dec. 1934*	*Dec. 1935*	*1929*	*Dec. 1932*	*Dec. 1933*	*Dec. 1934*	*Dec. 1935*
United States	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Australia	100	185	119	123	123	100	116	111	107	100	100	103[3]	100[3]	100[3]	100[3]	100	94	87	81	81
Belgium	100	100	64	59	82	100	116	108	93	94	100	110	106	99	104	100	107[2]	96	82	81
Canada	100	115	100	98	100	100	102	100	97	94	100	104	100	99	99	100	107[2]	97[2]	90[2]	90[2]
Czechoslovakia	100	100	64	71	71	100	139	118	108	105	100	123	118	114	115	100	120[2]	110	98	96
Denmark	100	156	119	120	120						100	117	121	122	122	100	120	112	103	101
Estonia	100	100	94	97	98	100	97	95	80	85	100	99	99	91	98	100	108[2]	99	89	96
France (Paris)	100	100	64	59	59	100	134	124	101	90	100	121[3]	122[3]	114[3]	105[3]	100	116[2]	110[2]	100	98
Germany	100	100	64	59	59	100	115	112	108	100	100	100	100	99	98	100	92	85	78	77
Italy	100	103	64	61	65	100	124	109	99	92[4]	100	106	101	94	94[4]	100	100	90	81	83
Japan	100	222	149	159	159	100	132	123	115	112	100	105	105	104	105	100	102	95	90	83
Netherlands	100	100	64	59	59	100	118	120	106	94	100	108	109	104	100	100	106	95	85	82
New Zealand	100	161	119	123	123	100	113	112	110	108	100	105	103	101	102	100	97	88	83	83
Poland	100	100	64	59	59	100	97	88	70	64	100	94	88	79	73	100	97	84	74	70
United Kingdom	100	149	95	98	98	100	131	124	115	109	100	113	112	109	110	100	111	102	95	94

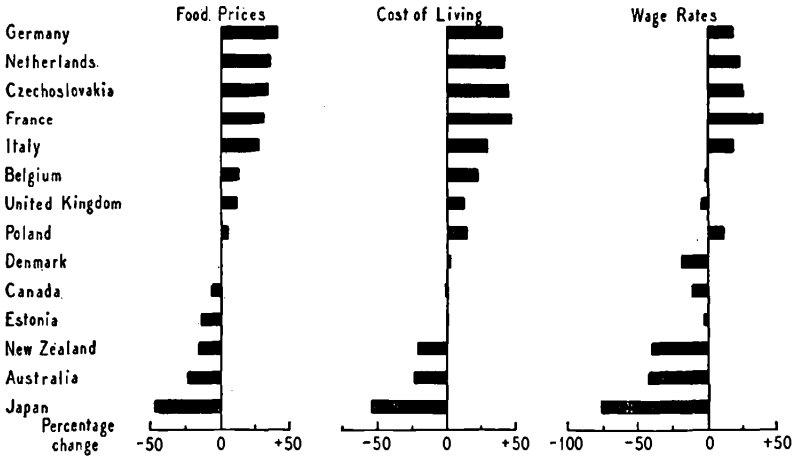
[1] For a statement concerning the sources employed in the construction of this table, see the footnote to Table 11.
[2] Annual figures. [3] Last quarter. [4] September 1935.

FIGURE 10

INTERNATIONAL COMPARISON OF CHANGES IN PRODUCTION COSTS, 1929–1935

Graph Showing Relative Amounts by which the Changes in Stated Series relating to Production Costs in Various Countries Exceeded or Fell Short of Changes in Corresponding Series for the United States, Account being Taken of Relative Changes in the Values of National Currencies

(Measurements of percentage changes from 1929 to December 1935)



The movement is shown as positive when the change in the country named exceeded the change in the corresponding series for the United States; it is shown as negative when the change was less than that in the series for the United States.

petitive position in 1935, relatively to the United States. The value of the dollar in December 1935 was 59 per cent higher than in 1929, in terms of Japanese currency. The various Japanese internal series that we are using as indexes of relative production costs would have been approximately 59 per cent above the corresponding American figures, on the 1929 base, if costs had been adjusted to the changed yen-dollar relationship. Actually they were far below that level. Living costs and food prices were, respectively, only 5 and 12 per cent above the United States figures, and wage rates

were 17 per cent below. Also in relatively strong positions, although with no such margin of apparent advantage as that of Japan, were New Zealand and Australia. Canada, Estonia and the United Kingdom stood on terms of approximate parity with the United States.

Typical of the countries in positions of relative disadvantage in 1935 is France. The value of the dollar in terms of the franc was 41 per cent lower in December 1935 than in 1929. But wage rates had changed by the same amount, relatively, as in the United States, living costs were 5 per cent higher in France, and food prices were only 10 per cent lower. There appears to have been no reduction in internal costs corresponding to the advance in the external value of the franc. With France, although in less pronounced positions of competitive disadvantage, stood Czechoslovakia, Germany, Italy and the Netherlands. (The list does not purport to be complete, since we are restricted to countries for which reasonably comparable index numbers are available.)

The measurements of living costs, wages, etc., which we have used as indexes of relative production costs, provide only rough approximations to the actual competitive positions of different countries. But there is no reason to doubt the essential truth of the picture we secure from Table 15. The changes in relative values of national currencies and in internal prices and costs that occurred between 1929 and 1935 worked havoc with the international cost relations in terms of which international trade was being re-established in 1929. Indeed, the magnitude of the differences developing is perhaps not sufficiently emphasized in Table 15, since the United States, which is the standard of reference, stands roughly in the middle of the divergent economies. If we compare Japan with France we have the accompanying measurements. Over this period of six years the value of the

	INDEX NUMBERS OF THE VALUE OF THE FRANC IN TERMS OF THE YEN		INDEX NUMBERS IN DECEMBER 1935 OF VARIOUS SERIES RELATING TO PRODUCTION COSTS, AS PERCENTAGES OF CORRESPONDING MEASUREMENTS FOR FRANCE (1929=100)		
	1929	*Dec. 1935*	*Food prices*	*Cost of living*	*Wage rates*
France	100	100	100	100	100
Japan	100	270	124	100	85

franc increased 170 per cent, in terms of the yen. The various domestic series for Japan should have risen by roughly equal amounts, relatively to those of France, if general equality of competitive position were to be maintained. But they did not. Food prices in Japan rose 24 per cent more than did food prices in France, cost of living paralleled the corresponding French series, and wage rates fell to a level 15 per cent below those of France. The measurements provide a striking example of the disorganization of competitive relations wrought by currency depreciation and divergent price and cost movements between 1929 and 1935.

As regards the relations between national cost structures, then, 1935 presents a disorganized picture. The world was not yet adapted to the suddenly-created differences of the several years preceding; it could not be so adapted without wrenching existing national productive organizations still further. Nor did the newly-established quotas and heightened tariff barriers promise to expedite a return to earlier trading relations. In spite of many signs of domestic improvement the condition of international trade remained black and unpromising at the end of 1935.[17]

[17] Devaluation in France, Switzerland, the Netherlands and Italy, which was announced in September and October 1936, promised to effect substantial alterations in the relations shown in Table 15. The re-establishment of currency relations with other countries closer to those of 1929 would be expected to remove some of the worst disparities among the series relating to production costs.

DISPARITIES OF COMMODITY PRICES

In earlier pages attention has been drawn to the post-War appearance, and persistence, of a world-wide schism between the prices of raw materials and manufactured goods. One phase of this was the price disparity between agricultural and industrial products, which was so marked a feature of the post-War situation in the United States. Recession accentuated the difficulties of a condition which had, indeed, been in considerable part corrected by 1929. The figures in Table 16, which define movements in the per unit purchasing power of raw materials in exchange for general commodities at wholesale in various countries, indicate the effects of world movements on this situation between 1932 and 1936.

TABLE 16

PER UNIT PURCHASING POWER AT WHOLESALE OF IMPORTANT RAW MATERIALS, 1913–1936

(Purchasing power is measured in terms of all commodities at wholesale in the country to which the raw material quotation relates.)

				Feb.					Feb.
	1929	*1932*	*1935*	*1936*	*1913*	*1929*	*1932*	*1935*	*1936*
Wheat									
England, Liverpool	100	81	67	81	100	97	79	66	79
Canada, Winnipeg	100	59	83	81	100	102	61	85	82
U. S., Chicago	100	60	88	93	100	97	58	86	90
Rice									
France, Marseilles	100	70	71	66	100	78	55	55	52
U. S., New Orleans	100	86	126	120	100	73	63	92	88
Sugar									
England, London	100	85	64	67	100	61	52	40	41
U. S., New York	100	112	100	106	100	80	89	80	84
Coffee									
Netherlands, Amsterdam	100	89	46	47	100	113	100	52	53
U. S., New York	100	71	48	51	100	123	87	59	62

TABLE 16 (*cont.*)

PER UNIT PURCHASING POWER AT WHOLESALE OF IMPORTANT RAW MATERIALS, 1913–1936

(Purchasing power is measured in terms of all commodities at wholesale in the country to which the raw material quotation relates.)

				Feb.					Feb.
	1929	*1932*	*1935*	*1936*	*1913*	*1929*	*1932*	*1935*	*1936*
Tea									
England, London	100	70	115	126	100	103	72	119	130
Netherlands, Amsterdam	100	75	95	104	100	118	88	112	122
U. S., New York	100	86	101	102	100	94	80	95	96
Cocoa									
England, London	100	90	84	83	100	56	51	47	46
Netherlands, Amsterdam	100	146	41	44	100	98	143	40	43
U. S., New York	100	88	58	58	100	74	66	43	43
Tobacco									
Netherlands, Amsterdam	100	97	84	81	100	293	286	245	237
U. S., Louisville	100	62	130	113	100	138	85	178	155
Lard									
U. S., New York	100	61	144	110	100	80	49	115	88
Nitrate of soda									
U. S., New York	100	108	70	70	100	64	69	45	45
France, Dunkerque	100	120	125	111	100	72	87	90	80
Cotton									
England, London	100	68	83	73	100	108	74	90	79
U. S., New Orleans	100	50	76	73	100	107	53	82	78
Wool									
England, London	100	71	88	107	100	114	80	100	121
U. S., Boston	100	68	87	106	100	129	88	112	136
Silk									
U. S., New York	100	45	38	41	100	99	45	38	41
France, Lyon	100	48	37	42	100	98	47	36	41
Japan, Yokohama	100	72	64	67	100	88	64	57	60
Hides, cattle									
England, London	100	82	99	100	100	72	59	71	72
U. S., Chicago	100	53	91	101	100	68	36	62	69
Pig iron									
Germany, Essen	100	115	101	100	100	82	95	83	82
England, London	100	112	124	124	100	88	99	110	110
Copper									
England, London	100	57	54	58	100	81	46	44	47
Germany, Berlin	100	45	35	39	100	87	39	30	34
U. S.	100	46	57	59	100	84	38	48	50

TABLE 16 (*cont.*)

PER UNIT PURCHASING POWER AT WHOLESALE OF IMPORTANT RAW MATERIALS, 1913–1936

(Purchasing power is measured in terms of all commodities at wholesale in the country to which the raw material quotation relates.)

	1929	*1932*	*1935*	*Feb. 1936*	*1913*	*1929*	*1932*	*1935*	*Feb. 1936*
Lead									
England, London	100	69	79	86	100	93	64	73	80
U. S., New York	100	69	72	78	100	113	78	81	89
Germany, Berlin	100	52	54	59	100	88	46	47	52
France, Paris	100	65	82	85	100	96	62	79	81
Zinc									
England, London	100	73	73	76	100	80	59	58	61
U. S., New York	100	71	82	90	100	86	61	71	78
Germany, Hamburg	100	57	51	52	100	79	45	41	41
France, Paris	100	66	83	76	100	86	57	71	65
Tin									
England, London	100	89	142	127	100	74	66	105	94
U. S., New York	100	71	133	125	100	74	53	98	92
Rubber									
England, London	100	44	77	90	100	20	9	16	18
U. S., New York	100	25	72	89	100	18	5	13	16
Newsprint									
Canada, Ottawa	100	113	80	82	100	84	95	67	69
Sweden	100	107	86	85	100	84	89	72	71
Beef, fresh									
France, Paris	100	120	107	109	100	89	107	96	97
U. S., Chicago	100	83	91	87	100	130	109	118	114
Mutton, fresh									
France, Paris	100	125	144	125	100	115	143	165	143
U. S., New York	100	73	74	66	100	100	73	74	66
England, London	100	88	105	89	100	110	96	115	98
Germany, Berlin	100	85	107	110	100	101	86	108	111
Pork, fresh									
Germany, Berlin	100	80	89	91	100	108	86	96	98
France, Paris	100	114	82	97	100	113	129	93	110
U. S., Chicago	100	63	125	114	100	103	65	129	118
England, London	100	84	92	85	100	119	100	110	101

From 1929 to 1932 raw materials declined in relative worth in 47 of the 58 markets represented in Table 16. From 1932

to February 1936 there were further declines in 22 of these markets, advances in 34. The measurements on the 1913 base throw light on the longer swings of the prices of foodstuffs and basic materials. In 1929, 37 of the 58 quotations in world markets reflected losses in the trading relations of primary producers, with reference to pre-War conditions. (In most instances the 1929 positions of primary producers were much stronger than those prevailing in the early years of the decade.) In 1932, 50 were below their pre-War parities with general commodities; by February 1936 this number had been reduced to 45. Here is evidence of some improvement in the trading positions of primary producers but the position of 1929, or that of 1913, was by no means restored.

These measurements define changes in the trading relations of primary products for general commodities within the various countries represented. The base of reference in each instance is the wholesale price index of the given country, in terms of national currencies. But these varying standards do not furnish the basis of international trade. In Table 17 we are able to follow the price movements of primary products with reference to broader standards. These measurements, constructed by the *Economist,* trace changes in the sterling and dollar prices of primary products, and in their corresponding gold prices, from the date of the departure of the United Kingdom from the gold standard.

Sterling prices of primary products advanced 12 to 14 per cent with the dropping of the gold standard by England in September 1931. Fluctuations followed, but without notable change in the average level until the end of 1933. Further advances in the sterling price of gold contributed to elevate the sterling prices of primary products to a level some 20 to 30 per cent above that of September 1931. The dollar prices

TABLE 17

PRICES OF PRIMARY PRODUCTS, 1931–1936

(In national currencies and in gold)

	PRICES OF PRIMARY PRODUCTS [1]		PRICES OF GOLD [2]		PRICES OF PRIMARY PRODUCTS	
	British (*sterling*)	*American* (*dollar*)	*British* (*sterling*)	*American* (*dollar*)	*British* (*gold*)	*American* (*gold*)
1931						
Sept. 18	100	100	100	100	100	100
Sept. 30	112	95	124	100	90	95
Oct. 28	114	101	124	100	92	101
Nov. 25	115	98	132	100	87	98
Dec. 30	117	94	142	100	82	94
1932						
Jan. 27	116	94	141	100	82	94
Feb. 24	121	90	140	100	86	90
Mar. 22	112	86	133	100	84	86
Apr. 20	105	84	130	100	81	84
June 29	99	80	135	100	74	80
July 27	104	84	137	100	76	84
Aug. 24	112	89	140	100	80	89
Sept. 21	117	90	140	100	84	90
Oct. 19	112	84	144	100	78	84
Nov. 30	112	78	154	100	73	78
Dec. 28	109	77	146	100	75	77
1933						
Jan. 25	108	78	143	100	76	78
Feb. 22	104	77	143	100	73	77
Mar. 22	104	80	142	100	73	80
Apr. 19	105	89	141	109	74	82
May 31	116	108	146	119	80	91
June 28	118	117	144	130	82	91
July 26	121	125	146	139	83	90
Aug. 23	117	119	148	138	79	86
Sept. 20	117	121	157	155	74	78
Oct. 18	113	109	155	142	73	77
Nov. 29	115	117	148	157	78	75
Dec. 13	115	117	148	154	77	76
1934						
Jan. 31	118	125	157	163	75	76
Feb. 28	121	128	161	168	75	76
Mar. 28	121	128	160	168	76	76
Apr. 25	120	125	160	169	75	74

TABLE 17 (*cont.*)

PRICES OF PRIMARY PRODUCTS, 1931–1936

	PRICES OF PRIMARY PRODUCTS [1]		PRICES OF GOLD [2]		PRICES OF PRIMARY PRODUCTS	
	British (*sterling*)	*American* (*dollar*)	*British* (*sterling*)	*American* (*dollar*)	*British* (*gold*)	*American* (*gold*)
1934						
May 23	121	129	161	169	76	76
June 20	123	134	162	168	76	80
July 18	125	137	162	168	77	81
Aug. 29	129	151	164	171	79	88
Sept. 26	126	149	166	170	76	88
Oct. 24	124	146	164	169	76	87
Nov. 21	120	149	164	168	73	89
Dec. 19	123	154	166	168	74	92
1935						
Jan. 30	125	152	167	167	74	91
Feb. 27	124	154	170	167	73	92
Mar. 27	123	148	171	168	72	88
Apr. 24	124	152	169	168	74	90
May 22	128	151	167	168	76	90
June 19	126	144	166	169	76	85
July 31	127	146	166	169	76	86
Aug. 28	126	141	165	169	76	84
Sept. 25	131	149	166	168	79	88
Oct. 23	134	145	166	169	80	86
Nov. 20	131	144	166	168	79	86
Dec. 18	131	142	166	169	79	84
1936						
Jan. 29	132	146	166	170	80	86
Feb. 26	133	145	166	171	80	85
Mar. 25	134	144	166	169	81	85
Apr. 29	133	143	166	168	80	85
May 27	130	140	164	168	79	84

1 Computed by the *Economist* from the wholesale prices of important raw materials. The list given by the *Economist* includes:

Wheat	Cocoa	Wool	Lead
Maize	Sugar	Cottonseed oil	Pig iron
Oats	Lard	Copper	Petroleum
Linseed	Bacon	Tin	
Coffee	Cotton	Rubber	

(*Notes to Table 17 concluded on p. 216*)

of primary products fell during 1931 and 1932, reaching a low point in the early months of 1933. With depreciation of the dollar and a sharp increase in domestic business activity the dollar prices of these products advanced about 60 per cent in the spring and early summer of 1933. Thereafter there was no substantial change until the spring of 1934, despite further advances in the dollar price of gold. Drought and crop scarcity in 1934 brought a sharp rise in the dollar prices of primary products, and in their American gold prices. Although the sterling and dollar prices of gold stood at the same general levels from 1934 to 1936, the dollar prices of primary products were consistently higher than the sterling prices. Domestic conditions in the United States contributed to this differential.

The very considerable recoveries of primary products in sterling and dollar prices are to be contrasted with the corresponding changes in their gold values, in British and American markets. These stood, in 1936, 15 to 20 per cent below the 1931 level. The gold prices of primary products in the United States advanced with the upswing of 1934, and later retained part of this gain.

The great international schism between the prices of basic materials and industrial finished products that was re-opened by the recession of 1929 had been somewhat lessened by the early months of 1936. Certain basic commodities had regained a substantial part of their lost purchasing power; others still stood in positions of marked disadvantage. These relations are vividly brought out by measurements defining

(Notes to Table 17 concluded)

The prices of these commodities with the exception of wool were taken from various American markets; the wool quotation is taken from Le Havre.

[2] Gold prices are based upon exchange rates, not on Treasury quotations.

changes in the net barter terms of trade of leading industrial and raw material producing countries (Table 18). These

TABLE 18

NET BARTER TERMS OF TRADE FOR EIGHT COUNTRIES,[1] 1913–1935

	1929	*1932*	*1934*	*1935*	*1913*	*1921*	*1929*	*1932*	*1934*	*1935*
United Kingdom	100	87	84	87	100	82	88	76	74	76
France	100	87	85	84	100	95	105	91	89	88
Germany	100	69	74	79	100		95	65	70	76
United States	100	84	79	77	100	78	95	81	75	73
Hungary	100	108	97	89	100	156	116	127	113	104
New Zealand	100	158	129		100	135	92	145	119	
Argentina	100	152	145		100	159	107	162	156	
Dutch East Indies	100	146	136	135	100	153	126	183	172	171

[1] The index numbers of import and export prices from which these measurements are derived are given in *Review of World Trade, 1934* (League of Nations, Geneva, 1935), p. 82.

measurements, which may be taken to define changes in the physical volume of exports required to pay for a fixed quantity of imported goods, are derived from index numbers of the prices of goods entering into foreign trade. An index of prices of goods imported by a given country, divided by an index of prices of goods exported by that country, on the same base, yields an index of net barter terms of trade.[18]

The divergent fortunes of industrial and colonial areas between 1929 and 1932 are clearly revealed by the indexes in Table 18. In the four industrial countries listed first we note declines ranging from 16 to 31 per cent in the volume

[18] The use of average prices of imported and exported goods in deriving measurements of this type involves the assumption that no substantial changes occur in the physical character of a country's export and import trade. This assumption is reasonably valid in respect of changes over short periods; it is far less sound as regards changes over one or two decades.

of exports exchangeable for a fixed quantity of imports; in the remaining four countries, which are heavy exporters of primary products, the volume of exports given in exchange for a fixed quantity of imports increased from 8 to 58 per cent. The several years following brought some amelioration of these conditions. But in 1935 the net barter terms of trade remained distinctly favorable to industrial countries, unfavorable to areas exporting raw materials. A shift of base to 1913 shows a somewhat more extreme cleavage between these two groups of countries. Trading relations of 1935 were far removed from those of pre-War days.

Turning now to primary products of agricultural origin, we find a notable difference persisting between their prices in important industrial countries and in areas producing primarily for export (Table 19). These index numbers measure changes in agricultural prices relatively to the movement of general wholesale prices. Thus if the index for agricultural

TABLE 19

PER UNIT PURCHASING POWER OF AGRICULTURAL COMMODITIES, 1913–1935

(In terms of all commodities at wholesale)

				Dec.					Dec.
	1929	*1932*	*1935*	*1935*	*1913*	*1929*	*1932*	*1935*	*1935*
Argentina	100	62	70	75					
Canada	100	69	83	86	100	108	74	90	92
England and Wales	100	113	116	111	100[3]	106	120	124	119
Finland	100	81	83	83					
France	100	122	105	107	100	92	113	97	99
Germany	100	100	106	107	100	95	95	100	102
Italy	100	103		109[2]	100	106	110		115[2]
Netherlands[1]	100	100	108	104					
New Zealand	100	62	72	75	100[4]	109	68	79	82
Poland	100	99	95	95					
United States	100	68	89	88	100	108	73	96	94

[1] Crop year.
[2] August.
[3] 1911–13=100
[4] 1909–13=100

prices declines, in terms of this standard, it means that the prices of non-agricultural commodities have advanced, relatively. This happened between 1929 and 1932 for all the countries listed in Table 19 except Germany, France, England, Italy and the Netherlands. In the main, these were protected areas for agricultural producers, in which preferential advantages in home markets were given to domestic producers. In the United States, Canada, New Zealand, Argentina and Finland agricultural products lost substantially in relative worth, following the currents prevailing in world markets. Recovery, to December 1935, had failed to restore farm products to their 1929 parity with commodities in general in the countries just listed, although appreciable improvement had occurred. In France some of the relative advantage enjoyed by agricultural producers had been lost, but agricultural producers in the industrial countries of Western Europe retained substantial advantages. No world level of agricultural prices existed in 1935. The effects of nationalistic economic policies are clearly manifest in their divergent movements after 1929.

We have noted that at the low point of the depression world price relations were definitely unfavorable to recovery of the capital goods industries. In Germany, in Canada, in the United States the prices of goods for use in capital equipment were high, as compared with commodities in general. Liquidation had left them on a plateau above the general price level. Japan was a notable exception. By early 1936 this condition had been materially improved in the United States, although construction costs remained high. Available measurements indicate some lessening, relatively, of the costs of capital goods elsewhere. The actual prices of such goods advanced in Japan, but they remained well below prices in general.

The record of world changes from 1932 to 1936, in physical

terms, showed very substantial gains in production in a number of countries. For four years the general movement was one of irregular and spotty recovery. This was not a single great movement, however; it was rather of the nature of a series of national gains, largely disconnected. Considerable advances were scored in Japan, Great Britain, the United States and other countries, but each national movement appeared to be definitely limited in its international effects. The gains in world trade during this period were not commensurate with the recoveries shown by domestic records. (Japan increased the volume of its export trade materially, but this movement was exceptional.) Over these years the world was following a path of nationalistic development. No working international organization had been restored. National self-sufficiency rather than regional specialization was the keynote of the time, as was strikingly manifest in the concurrent industrialization of colonial areas and the pressure towards agricultural development within industrial nations.

The price movements of the period of recession and recovery reflected the trend away from an international organization and towards a nationalistic system. We have traced the divergence of national price levels and the disparate changes of factors related to production costs. The price bases of world trading relations had been profoundly disturbed by these movements. By 1936 some favorable developments had occurred. The world-wide schism between the prices of raw materials and of manufactured goods had been lessened. Some recovery had been made in world trade. Progressive depreciation of currencies had been checked. Announcement in September of sympathetic cooperation between England, France and the United States in the stabilization of exchange relations marked a forward step of great significance. But serious difficulties persisted. Disparate

price levels and widely different cost relations re-enforced prohibitive tariffs and quota restrictions in checking commercial intercourse. A world price structure, with its national elements mutually adjusted, had not yet been restored.