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PART II

*The British Campaign for Parity with Gold  
in its World-wide Setting, 1920-1925*



## CHAPTER 10

### *The Dance of the Price Levels, 1920-1924*

The post-war stabilization problem was in the main appraised and formulated before the end of the short international business cycle of 1918-20. It was agreed that there should be a general return to the international gold standard. The alternatives of achieving this end by deflation or devaluation were clearly presented to countries whose exchanges had depreciated 'in gold,' and the considerations governing this choice were laid down with precision and commanded a wide agreement on the part of authoritative opinion. The process, however, of translating these agreed-on principles into action was long and arduous, occupying almost the whole of the unusually long international business cycle of 1920-29 and directly affecting its duration.<sup>1</sup> It falls naturally into two major divisions: first, a period dominated by the British effort to return to gold ending with the German stabilization of 1924 and the British stabilization of April 1925, and second, a period of completion and consolidation ending with the French *de jure* stabilization of June 1928.

From 1925 to 1928 the problem of returning to gold was similar in some respects to that which faced a country driven off the gold standard before the war. It was a question of the manner in which a given currency could be related to an already existing widespread system of stable exchange rates. Before April 1925, however, when the United States was the only major power adhering to the forms of the gold standard, the problem took the form of either establishing a new parity with the dollar or returning to the pre-war exchange rate on

<sup>1</sup> Cf. Ch. 21, A Deferred Cyclical Adjustment.

New York. For Great Britain, whose mind was made up on this question, the great practical problem was: How much deflation will be necessary to return to par? Other countries, however, not only had to choose between deflation and devaluation as means of returning to gold, but had to make an antecedent and even more fundamental decision. They had to decide whether they preferred stability in dollars to stability in sterling. They had to answer a question which could not have arisen at all before the war: Who is leader in the foreign exchanges? Many countries were anxious both to avoid having to answer this preliminary question and to escape a Hobson's choice between deflation and devaluation. An early stabilization that did not involve severe deflationary pressure on British prices was in their interest. They shared with Great Britain the hope that if large amounts of gold were sent to America, American prices would rise, and their own problems would be made simpler.<sup>2</sup> The realization of this hope was dependent first upon the magnitude of the flow of gold to the United States and second upon the treatment of gold imports in the American credit system.

### The Characteristics and Significance of Gold Movements, 1920-1924

From 1920 to 1924 the amount of gold reaching America was a function of three variables:

- 1) the volume of newly produced gold reaching the London market and having a license for export
- 2) the division of this stream of gold between the consumer demand that was effective in the bullion market and the monetary demand represented by the standing offer of the United States Treasury to buy all gold offered at a fixed price in dollars

<sup>2</sup> Cf. the references in the First Interim Report of the Cunliffe Committee to the possibility that the maintenance of the gold standard in England would be facilitated if England ceased to inflate while other countries continued to do so; also the brief popularity in France in 1915 of the idea of gorging America with gold in order to make American prices rise and thus help support the franc (the Moroni scheme).

g) the amount of special shipments sent to America by governments and central banks.

British policy in South Africa was designed to keep the flow of newly produced gold from falling by protecting in one way or another the economic position of the gold mining in-

TABLE 17

*Union of South Africa, Gold Production, 1919-1925*

	FINE OUNCES	PERCENTAGE OF TOTAL WORLD PRODUCTION		FINE OUNCES	PERCENTAGE OF TOTAL WORLD PRODUCTION
1919	8,333,698	47	1922	7,026,542	45
1920	8,336,561	51	1923	9,152,200	51
1921	8,133,583	51	1924	9,577,233	50
			1925	9,603,197	50

SOURCE: Summarized Data of Gold Production (U.S. Department of Commerce, Bureau of Mines, Economic Paper 6, 1929)

dustry in the South African economy. This was a complex and technically interesting phase of post-war financial history,<sup>3</sup> the central episode of which was the so-called Revolution in the Rand in 1922. With the settlement of the issues involved in that sharp and bitter social upheaval, gold output was rapidly and substantially increased (Table 17).

*New York as a Residual Buyer of Gold*

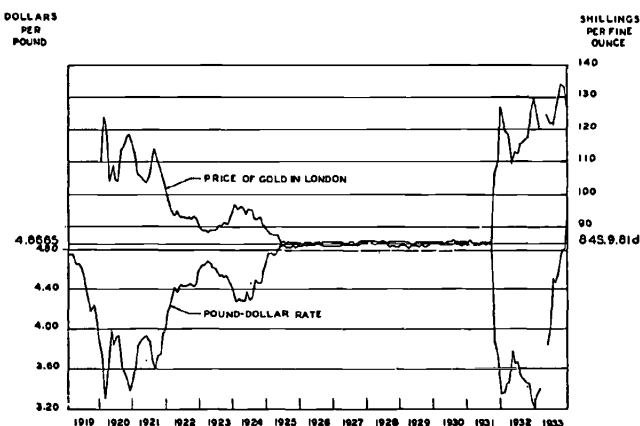
The proportion of the gold thus made available for sale in the London market that went to New York was determined by New York's position as a residual buyer of gold. After September 1919 the price of gold in London rose or fell with the fluctuations of the sterling-dollar exchange. Whatever, therefore, affected the sterling-dollar exchange rate affected the price of gold, whether it was the payment of reparation by Germany through the London market, a flight of capital from France to the United States, the repurchase of Dutch securities in the United States, a longshoremen's strike in

<sup>3</sup> For a brief treatment cf. Brown, *op. cit.*, pp. 75 ff. and 127 ff. Mr. Smit has treated this subject more at length in an unpublished manuscript.

New York, the cyclical behavior of American prices, or the management of British monetary policy. The closeness with which the open market price for gold in London adhered to the New York parity price is evident from Chart 11.

CHART 11

*Sterling-Dollar Exchange and London Price of Gold  
1919-1933, monthly, First Tuesday*



The gold shipped to New York at this price was the amount left over after the true consumer demand in London had been satisfied. Buyers whose demand for gold depended upon consumer needs and consumer purchasing power could satisfy their requirements by paying as little as a farthing more than the New York parity price. They could vary their bids and were not compelled by law to purchase unlimited amounts whenever their bids happened to be the highest in the market. Of such purchasers India was the most important, in actual amount taken, and the most significant for the analysis of the international gold standard.

#### *The Gold-Silver Ratio in India*

Indian demand for gold was determined by the amount of Indian savings, by the growth of opportunities for their in-

TABLE 18: *Sterling-Dollar Exchange and London Price of Gold, 1919-1933*

STERLING-DOLLAR EXCHANGE

	1919	1920	1921	1922	1923	1924	1925	1926
Jan.	4.76	3.75	3.61	4.19	4.64	4.29	4.78	4.85
Feb.	4.76	3.30	3.85	4.30	4.66	4.32	4.78	4.86
March	4.76	3.55	3.90	4.43	4.70	4.30	4.77	4.85
April	4.66	3.99	3.92	4.39	4.66	4.30	4.77	4.86
May	4.67	3.86	3.97	4.44	4.63	4.39	4.85	4.85
June	4.62	3.92	3.88	4.46	4.62	4.31	4.86	4.86
July	4.52	3.95	3.71	4.45	4.55	4.33	4.86	4.86
Aug.	4.33	3.62	3.60	4.45	4.56	4.49	4.85	4.86
Sept.	4.17	3.57	3.74	4.45	4.52	4.46	4.84	4.85
Oct.	4.23	3.50	3.77		4.55	4.46	4.84	4.85
Nov.	4.16	3.42	3.95	4.46	4.48	4.57	4.85	4.84
Dec.	3.91	3.49	4.07	4.57	4.39	4.68	4.85	4.84
	1927	1928	1929	1930	1931	1932	1933	
Jan.	4.85	4.87	4.85	4.87	4.85	3.36	3.33	
Feb.	4.85	4.87	4.85	4.86	4.85	3.45	3.42	
March	4.85	4.87	4.83	4.86	4.85	3.48		
April	4.85	4.88	4.85	4.86	4.85	3.77		
May	4.85	4.87	4.85	4.85	4.86	3.66	3.89	
June	4.85	4.88	4.84	4.85	4.86	3.67	4.02	
July	4.85	4.87	4.84	4.86	4.86	3.54	4.49	
Aug.	4.85	4.85	4.85	4.87	4.85	3.51	4.46	
Sept.	4.86	4.85	4.84	4.86	4.86	3.47	4.56	
Oct.	4.86	4.84	4.85	4.85	3.86	3.45	4.76	
Nov.	4.87	4.84	4.87	4.85	3.75	3.30	4.82	
Dec.	4.88	4.85	4.88	4.85	3.35	3.20	5.10	

LONDON PRICE OF GOLD

	1920		1921		1922		1923		1924		1925		1926	
	s	d	s	d	s	d	s	d	s	d	s	d	s	d
Jan.	110	0	112	2	98	4	88	10	96	10	87	4	84	10½
Feb.	123	6	106	9	95	9	88	8	95	4	87	1	84	11½
March	119	0	105	7	93	6	87	9	95	11	86	9	84	11
April	103	2	104	7	95	0	88	3	95	10	86	6		
May	108	3	103	4	93	2	88	9	94	2	84	11½	84	10½
June	105	0	105	5	93	1	89	0	95	6	84	11½	84	11½
July			110	9	92	5	90	7	95	4	84	11	84	11½
Aug.	114	0	115	5	92	9	90	3	92	7	84	11½	84	10
Sept.	115	1	110	4	92	4	91	2	92	5	84	11½	84	11½
Oct.	117	3	108	7	93	1	90	7	92	8	84	11½	84	11½
Nov.	119	6	104	7	92	4	92	0	90	9	84	11½	84	11½
Dec.	117	4	101	3	90	1	94	0	89	2	84	11½	84	11½
	1927		1928		1929		1930		1931		1932		1933	
	s	d	s	d	s	d	s	d	s	d	s	d	s	d
Jan.	84	11½	84	11½	84	11½	84	11½	85	0¾	122	5	123	8
Feb.	84	11½	84	11½	84	11½	84	11	84	11½	119	7	120	2
March	84	11½	84	11½	84	11½	84	11½	84	10¾	118	10	119	7
April	84	11	84	11½	84	10¾	84	10	84	10¾	109	5		
May	84	11	84	11	84	11¼	84	11½	84	11¾	113	1	124	8
June	84	11½	84	10¾	84	11¾	84	11½	84	10¾	112	7	122	6
July	84	11½	84	10	84	11¾	85	0¾	84	11	116	5	122	10
Aug.	84	10	84	11¼	84	11¾	84	11¾	84	11¾	117	0	124	0
Sept.	84	10¾	84	11¼	84	11¾	85	0¾	84	9¾	118	6	130	7
Oct.	84	11½	84	11½	84	11¾	84	11¾	105	8	119	4	134	0
Nov.	84	11½	84	11½	84	11¾	85	0¾	110	3	125	5½	133	3
Dec.	84	11¼	84	11¾	84	11¾	85	1¼	126	7	129	2	126	0

SOURCES: *Bankers', Insurance Managers' and Agents' Magazine; The Economist; Financial News*



vestment other than in the purchase of the precious metals, by speculation concerning the future course of British policy with respect to the sterling-rupee rate of exchange, and by the gold-silver ratio within India. This ratio was directly affected by fluctuations in the sterling-dollar exchange.

Like the price of gold in London, the price of silver in London was greatly influenced by any rapid fluctuation in the sterling-dollar exchange, and the price of silver in rupees was consequently also influenced by it; for the principal silver producing countries were Mexico and the United States, whereas the principal silver market was London. Consequently when the silver market in London was freed from war-time control in May 1919 fluctuations in the dollar-sterling rate became an important influence on the rupee price of silver. At this time, however, the first phase of Indian government control over gold was still in effect and the price of gold within India was still the result only of the play of supply and demand forces within India. Changes in the sterling-dollar rate of exchange, therefore, by influencing the price of one of the precious metals and not the other could not fail to influence the ratio between them. With the introduction of the second phase of government control over gold imports, fluctuations in the sterling-dollar exchange exercised a strong influence on the price of both metals in rupees. Under the third phase of government control, a situation similar to that existing under the first phase was again created. Finally, when all restrictions on the import of gold and on the sterling-rupee exchange were given up in June 1920, the fluctuations in the sterling-dollar exchange became once more one of the many factors influencing the price of both metals in rupees (cf. Ch. 9, Establishment of an International Market for Gold in London).

Under the first and third phases of government control over gold in India, therefore, fluctuations in the dollar-sterling exchange may be considered as a direct influence tending to alter the gold-silver ratio in India because they acted on the

rupee price of only one of the precious metals. Under the second phase of government control and after the abolition of control, this influence acted on the rupee price of both metals. It is not justifiable, however, to assume that the effects of fluctuating exchange rates upon the prices of the two metals in the Orient would be equal when all the supply and demand factors are taken into account. The influence of changes in the sterling-dollar and sterling-rupee rates upon the price of gold in rupees was probably quite different from its effect upon the price of silver in rupees.

In general, when the pound was strong in New York the price of gold in London fell and Indian demand was encouraged. When the pound was weak in New York the price of gold in London rose and Indian demand was discouraged and sometimes turned into an offer.<sup>4</sup> The most striking example was the export of gold from India induced by the high price of gold in London after England left the gold standard in 1931 (cf. Ch. 23). The experience of the post-war years taken as a whole demonstrated that the existence of an international gold standard covering all the great countries of the world except China, together with a stable sterling-rupee rate of exchange, eliminates one very important disturbing influence on the age-old trade between the metals in the Orient. The experience of 1920-24 demonstrates how extraordinarily complex are the forces which distribute the precious metals between East and West.

From 1920 to 1924 changes in relative prices in Great Britain and the United States were among the causes of fluctuations in the gold-silver ratio in India because they were among the causes of fluctuation in the sterling-dollar exchange. Therefore they partly determined the size of gold shipments to America. Gold shipments to America affected prices throughout the Western world in an extraordinarily

<sup>4</sup> The changes in Indian demand for gold have been traced by the writer in detail for 1920-25 in *England and the New Gold Standard*, pp. 82 ff. and 186 ff.

complex way, and changes in the purchasing power of gold in the Occident in turn reacted in a very long run and indirect manner upon the gold-silver ratio in the Orient. Such a long series of interacting influences between East and West is far too subtle to be caught in the statistician's net. It was not a measurable feature of the story of the return to gold after the war, but it was nonetheless real—a new chapter in a very ancient story. The struggle of the West to find a way out of its monetary troubles was a drama played upon a world-wide stage.

*The Regular Pattern of Gold Distribution*

From 1920 to 1924 the distribution of the world's gold was dominated by a peculiarly regular pattern. In the spring of 1920 the export of gold from the United States ceased. The special circumstances that had produced a price for gold in India far above the world price ended with the removal of official control of gold imports in June. Thereafter, newly produced gold moved from the South African mines to the London market and there it was divided into two streams, one going to India and one going to America. Tables 19 and 20 show the predominance of this movement in the gold trade of both the United Kingdom and the United States.

In establishing this basic pattern of gold distribution British policy was dominant. South Africa maintained during these years a volume of gold production that was never substantially less than before the war and for some years was of record dimensions. To some degree the imperative necessity from the viewpoint of imperial policy of keeping the gold flow to the London market undiminished involved the subordination of other sections of the South African economy to the interests of the gold mining industry. At the same time banking facilities were developed in India in order to provide an alternative to gold and silver as a store of value. British policy, conceived upon an imperial scale, was a factor in determining the amount of gold reaching the United States;

TABLE 19

*United Kingdom, Gold Movements, 1920-1924, annually and by quarters*

Net imports +, Net exports - (thousands of pounds at mint parity)

	RUSSIA	HOLLAND	FRANCE	U.S.A.	W. AFRICA	S. AFRICA	RHODESIA & TRANSVAAL	BRITISH INDIA
1920	+1,437	+ 173.4	+4,471.1	-39,954	+717.0	-5,377.3	+25,757	-17,966
1		+158.5	-256.7	-2,366	+143.6	-2,165.6	+5,925	-9,243
2		+3.4	+207.3	-6,144	+180.8	-2,473.3	+6,348	-4,845
3	+532.9	+12.5	+5.6	-8,314	+182.3	-380.6	+6,231	-2,257
4	+904.1	-1.0	+4,514.9	-22,230	+210.3	+75.8	+7,253	-1,621
1921	+432.2	+213.3	-16.4	-44,194	+85.8	-369.4	+29,018	+5,287
1	+432.2	+268.4	-2.8	-9,678	+200.6	-371.8	+7,499	+1,561
2		-24.2	-5.6	-12,856	+207.1	+0.2	+7,144	+903
3		-30.2	-1.2	-12,527	+200.3	+0.3	+6,461	+2,994
4		-0.8	-6.8	-9,133	+250.3	+1.9	+7,914	-171
1922		-51.7	-3,402.0	-23,975	+1,007.4	+14.2	+29,649	-11,933
1		-30.1	-0.3	-3,829	+250.8	+0.6	+5,589	-2,588
2		+33.8	-12.0	-484	+267.4	+3.7	+5,705	-4,867
3		-19.2		-11,377	+219.2	+3.8	+8,682	-2,277
4		-36.2	-3,389.7	-8,285	+270.0	+6.1	+9,673	-2,201
1923		-1,360.3	-120.6	-28,204	+1,163.3	+10.6	+37,474	-18,379
1		-34.4		-789	+355.4	+1.6	+9,311	-10,945
2		-209.9	-33.7	-6,211	+299.8	+4.7	+10,426	-4,024
3		-437.3	-0.2	-7,979	+265.7	+2.8	+9,842	-2,680
4		-678.7	-86.7	-14,125	+242.4	+1.5	+7,895	-730
1924	-1,912.5	-1,009.8	-362.8	-24,006	+1,278.0	+6.0	+27,877	-11,505
1		-797.3	-72.3	-12,081	+313.4		+8,598	-2,265
2		+24.3	-139.8	-10,176	+317.0	+3.7	+9,468	-3,042
3		+8.4	-104.5	-4,336	+266.9	+1.1	+5,511	-2,461
4	-1,912.5	-245.2	-46.2	+2,587	+380.7	+1.2	+4,310	-3,737

SOURCE: League of Nations, *Memorandum on Currency and Central Banks, 1913-1924*, I, 82

TABLE 20

## United States, Gold Movements, 1920-1924, annually and by quarters

Net imports +, Net exports - (thousands of dollars)

	FRANCE	GERMANY	HOLLAND	SWEDEN	UNITED KINGDOM	N. AND C. AMERICA *	CHINA	BRITISH INDIA	JAPAN
1920	+48,739	-2	+2,099	+2,036	+274,884	+20,365	-28,286	-6,753	-101,299
1	+20	-10	+1,161		+11,045	+7,334	-14,422	-2,717	-6,762
2	+675			+1	+49,341	+5,700	-1,864	-2,643	-2,000
3	+15,893		+1	+1	+30,578	+3,973	-9,000	-1,144	-38,949
4	+32,151	+8	+937	+2,035	+177,920	+3,358	-3,000	-249	-53,588
1921	+191,447	+19,928	+19,893	+63,713	+202,091	+45,810	+17,912	+30,923	+2,208
1	+59,520	+4	+1,557	+4,679	+51,163	+21,390	+9,661	+8,080	+2,208
2	+13,818	+4	+14,159	+37,992	+51,087	+8,938	+4,525	+9,066	
3	+80,731	+16,342	+2,785	+9,538	+57,813	+8,310	+3,193	+10,087	
4	+37,378	+3,578	+1,392	+11,484	+42,028	+7,172	+533	+3,690	
1922	+27,043	+35	+9,939	+32,807	+121,863	-4,045	+8,587	-4,445	
1	+9,951	+5	+10	+27,957	+18,799	+7,263	+510	-824	
2	+2,372		+3,523	+3,523	+6,015	+4,754	+3,104	-3,516	
3	+4,648	+8	+4,936	+942	+59,776	+1,602	+2,082	-55	
4	+10,072	+22	+4,993	+385	+37,273	-17,664	+2,891	-50	
1923	+16,377	+49,552	+13,202	+5	+149,534	+52,536	+5,478	-14,638	
1	+3,409		+5,696	+10,719	+10,719	+20,909	+572	-13,289	
2	+1,602	+26,889	+313	+3	+33,803	+5,224	+1,548	-38	
3	+4,430	+15,544	+4,893		+41,649	+11,435	+1,115	-488	
4	+6,936	+7,119	+2,300	+2	+83,363	+8,968	+2,243	-823	
1924	+24,346	-15,171	+49,641	+4,522	+118,645	+42,315	+5,021	-11,025	
1	+8,517	+2,862	+5,917	+42	+61,971	+16,410	+722	+222	
2	+1,232	+1,937	+28,582	+6,149	+48,521	+9,736	+2,022	+2,022	
3	+890	+2	+2	+20,401	+7,458	+1,858	+1,858	-3,691	
4	+13,707	-19,992	+15,140	-1,669	-12,248	+6,711	+419	-7,334	

SOURCE: League of Nations, Memorandum on Currency and Central Banks, 1913-1924,

1, 84

\*Total of Canada, Mexico, Central America, and West Indies.

for it increased the available supply, modified the competitive demand, and provided the technical machinery by which the distribution was carried out.

### *Special Gold Shipments*

The regular pattern of the main movements of gold between South Africa, India, and the United States was frequently modified by special shipments to America. For example, in 1920 and 1922 Great Britain shipped gold directly to New York in payment of United Kingdom notes, and in May 1923 the Reichsbank shipped gold to America from its own reserves in connection with reparation payments. The largest single exception to the regular pattern of gold distribution during these four years was the import of gold into the United States from France in 1921, which represented the final disposition of a large part of the gold reserves of Russia.

### *The General Significance of these Gold Movements*

Both in the fundamentally regular underlying pattern of distribution and the modifications of it by special shipments the movement of gold internationally from 1919 to 1925 was highly abnormal. Chart 12 brings out clearly the contrast between the gold trade of Great Britain and America during this period and pre-war times. Gold was often the most convenient, if not the only means of settlement of certain special transactions, and shipments at central bank initiative were far larger and more frequent than before the war. In the actual commodity balance of payments gold played a role out of all proportion to that previously assigned to it. Finally, the economic significance of the concentration of gold shipments to one destination in the hope of influencing the value of gold by inducing an inflationary movement in one country alone was in remarkable contrast to all the characteristic features of the long term distribution of gold among the countries of the world analyzed in these studies. Under these circumstances, it is obvious that from a world point of view

TABLE 2 I

*United Kingdom and United States  
Imports and Exports of Gold Coin and Bullion, 1870-1930*

	UNITED KINGDOM		UNITED STATES	
	Imports	Exports	Imports	Exports
	(thousands of pounds sterling)			
1870	18,807	10,014		
1871	21,619	20,698		
1872	18,469	19,749		
1873	20,611	19,071	4,220	5,239
1874	18,081	10,642	1,527	8,867
1875	23,141	18,648	2,948	10,976
1876	23,476	16,516	4,863	6,418
1877	15,442	20,361	2,390	3,899
1878	20,871	14,968	2,139	1,799
1879	13,369	17,579	16,186	846
1880	9,455	11,829	15,133	627
1881	9,963	15,499	12,411	535
1882	14,376	12,024	2,754	7,957
1883	7,756	7,091	4,754	1,243
1884	10,744	12,013	5,745	8,352
1885	13,376	11,931	4,859	2,346
1886	13,392	13,784	8,488	8,483
1887	9,955	9,324	9,224	1,879
1888	15,790	14,944	2,252	7,095
1889	17,686	14,455	2,467	10,466
1890	23,568	14,307	4,157	4,945
1891	30,276	24,228	9,241	16,251
1892	21,471	14,832	3,586	15,726
1893	24,242	19,571	14,952	16,393
1894	27,572	15,648	4,234	20,923
1895	36,006	21,369	7,062	21,569
1896	24,468	30,106	21,521	11,972
1897	30,809	30,808	6,998	7,048
1898	43,723	36,590	32,496	3,331
1899	32,534	21,536	10,549	9,325
1900	26,191	18,397	13,716	11,124
1901	20,716	13,965	11,253	11,874
1902	21,629	15,409	9,081	7,404
1903	28,657	27,766	13,412	9,113
1904	33,876	33,039	17,426	24,907
1905	38,568	30,830	10,335	9,616
1906	46,042	42,617	31,969	9,598
1907	57,088	50,866	29,466	11,346
1908	46,133	49,969	10,331	16,689
1909	54,692	47,250	9,059	27,305
1910	57,322	50,898	12,169	12,077
1911	48,694	40,100	11,804	7,641
1912	52,689	46,538	13,675	9,745
1913	59,533	46,087	13,090	18,863
1914	58,642	30,599	11,792	45,745

TABLE 21 (concluded)

	UNITED KINGDOM		UNITED STATES	
	Imports	Exports	Imports	Exports
	(thousands of pounds sterling)			
1915	10,828	39,218	92,870	6,458
1916	17,790	38,449	140,962	32,013
1917	48,184	40,875	113,522	76,417
1918	21,316	14,686	12,749	8,439
1919	146,786	36,896	15,727	75,657
1920	50,678	92,565	85,702	66,185
1921	49,676	59,348	142,042	4,909
1922	34,542	44,838	56,544	7,577
1923	43,987	57,434	66,314	5,886
1924	35,792	49,420	65,698	12,668
1925	41,461	49,675	26,358	53,969
1926	38,547	27,128	43,872	23,776
1927	32,404	29,060	42,646	41,396
1928	47,801	60,524	34,706	115,228
1929	62,411	77,563	59,930	23,956
1930	86,659	81,797	81,384	23,830

SOURCES: For the United Kingdom: 1870-1908, National Monetary Commission, *Statistics for Great Britain, 1867-1909* (Doc. 578), p. 66; 1909-16, *Statistical Abstract of U.K., 1921*, imports, pp. 244-5, exports, pp. 250-1; 1917-30, *ibid.*, 1932, pp. 388-9. For the United States: *Annual Report of the Director of the Mint, 1931*, p. 85 (dollars converted at \$4.8665).

the international gold standard system of tradition existed nowhere. This did not, however, prevent the world from considering the United States, in the fullest sense of the word, a gold standard country.

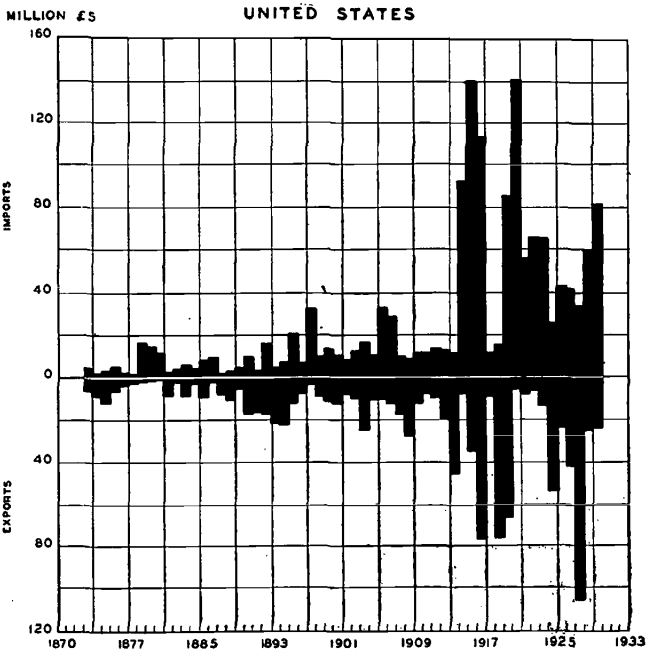
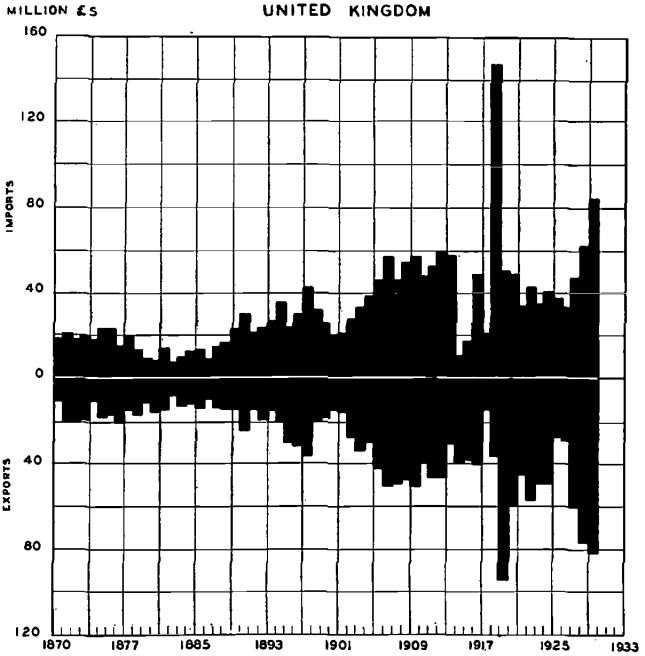
### The Effect of Gold Imports on the American Economy, 1920-1924

In the long run process of gold distribution under the pre-war international gold standard system the expansion of credit resulting from gold imports was related to the growth in the wealth and international trade of gold importing countries, to the use made of foreign capital in the development of their resources, and to their need for credit facilities. Not only was this not true of the gold imports that began to reach America in the spring of 1920, but none of the conditions usually associated with the beginnings of a gold move-



CHART 12

*United Kingdom and United States, Imports and Exports of Gold Coin and Bullion, 1870-1930*



ment into a gold standard country was then present in the United States. Gold began to flow into the United States at a moment when rapid and long continued inflation in prices had undermined the stability of the price structure, and when the ultimate limits of credit expansion under the legal forms of the gold standard were nearly reached.

*The Peak of War Inflation, 1920*

THE TURNING POINT IN PRICES

By the summer of 1920 war-time and immediate post-war demand for certain classes of products had spent itself, but the redistribution of productive resources caused by this demand remained. Deep-lying long run tendencies in the world demand for industrial products and raw materials reasserted themselves and pre-war production trends were resumed (cf. Ch. 7). Pre-war price trends, however, were reversed. Before the war raw materials were rising in value relatively to manufactured goods, but beginning in 1914 they began to lose their favorable position in the price system. From 1914 to 1917 they fluctuated in price in much the same way as manufactured goods. This was in itself a reversal of trend. In 1918 the position of raw materials improved somewhat, but from that year to 1920 the prices of manufactured goods rose far more rapidly. At the peak of the boom manufactured goods had gained 5 per cent in real purchasing power, and raw materials as a whole had lost 11 per cent as compared with 1913.

The comparison of all raw material prices with the prices of manufactured goods seriously obscures one important aspect of the situation. During the post-war boom agriculture was prosperous in the United States. The prices of other raw materials began to fall relatively to those of manufactured goods as early as 1916, while the prices of agricultural raw materials rose until 1919. In 1917 the American farmer was in a better position than in 1913 both as a producer of raw materials and of processed goods. Though his advantage was

reduced by war-time regulations, it persisted for some time and reached its peak only in 1919. Thereafter the farmer lost his advantage rapidly. Agricultural prices were falling and when the 1920 boom was at its peak had already reached the same relative position as at the outbreak of the war.

Not only were the relative positions of agriculture and industry rapidly changing but high indexes of price dispersion and variability showed that the relations of industries to one another were far less stable than before the war. The price structure existing in the United States when gold began to flow in was extremely unstable. It had to undergo a thorough readjustment which cannot be better described than by quoting from F. C. Mills:

"In May, 1920, commodity prices started downward after a sharp eleven-months' advance which had carried the general level up 23 per cent, and after a five-year advance amounting to 142 per cent. The level from which the decline started was not one which bore any of the aspects of permanence. The relations among different elements of the price structure which existed in May, 1920, had prevailed for only a short time. Flux had been the outstanding feature of the recent past. There had been no consolidation of the economic positions of different economic groups, no general making of long-term commitments on the basis of existing prices. As a result, when once the price decline was well under way the barriers to liquidation which are offered by a thoroughly consolidated position and a sense of permanence in commodity values were relatively weak. Within the eleven months of sharpest decline the drop amounted to 44 per cent, and the rate of decline per month averaged 5.1 per cent. Price recession was intense, but the violent change was concentrated within a period of less than a year."<sup>5</sup>

The result of this violent decline in American prices from 1920 to 1921 was to accentuate the reversal of the pre-war trends in the relation of the prices of raw materials and of

<sup>5</sup> *Economic Tendencies in the United States* (National Bureau of Economic Research, 1932), p. 202. The material summarized in the preceding paragraphs is taken from this source, pp. 202-10, 337.

manufactured goods, and to end abruptly the post-war period of agricultural prosperity. It laid the foundations for an era of manufacturing and industrial prosperity.

#### THE LIMIT OF CREDIT EXPANSION

While the gathering forces of economic and price readjustment were becoming irresistible in the spring of 1920, both primary and secondary expansion of bank credit were approaching the limits prescribed by law. By June 1920 the American banking system had completed its task of financing the war and had passed on to the general public the special burdens placed upon it by the demands of the government. During the prosperity of the restocking boom, beginning in March 1919, special and successful efforts were made to get government securities out of the portfolios of banks, and at the same time loans to customers secured by government bonds began a decline that lasted five years. The government debt was already being reduced, but the demands of the government for credit were being replaced by those of a dangerous commercial and industrial boom. Consequently the culminating period of bank credit inflation prior to the first great post-war depression was characterized by a large reduction in bank investments and a simultaneous large increase in loans and discounts.

The new volume of deposits, added to the already vast credit superstructure left by the war itself, and the relative contributions to its creation by investments and loans are shown in Chart 37. During the six years from June 1914 to June 1920 bank credit in the United States had doubled, individual deposits had increased 103.7 per cent, and loans and investments, 100.2 per cent. Loans and discounts had increased 98.9 per cent, and investments 103.9 per cent. For the first time since the Federal Reserve system was established excess reserves of commercial banks were practically eliminated.<sup>9</sup> Secondary bank credit expansion was also approaching

<sup>9</sup> B. H. Beckhart, ed., *The New York Money Market*, II, 37, chart.

its limit. In the spring of 1920 the reserve ratio of the twelve Federal Reserve banks combined was about 42.5 per cent, and those of certain individual Reserve banks were maintained at the legal figure only by inter-district borrowing. The late spring of 1920 was the first and only time between the foundation of the Federal Reserve system and the crisis of 1933 during which no substantial excess reserves existed anywhere in the banking system.

Since the beginning of 1920 government pressure on interest rates had been gradually relaxed, and the Federal Reserve banks had pursued a policy of raising their rates of discount on various classes of paper in an irregular but persistent manner. On June 1 the Federal Reserve Bank of New York, followed by three other Reserve banks, imposed a 7 per cent rate on 90 day commercial paper. Rapid credit inflation in America had ended, but was not immediately succeeded by severe credit contraction. Not until the decline in prices and deflation in business had been in full swing for some months did the extension of credit by the Federal Reserve banks to commercial banks, and by commercial banks to their customers, begin to decline substantially. Deflation of bank credit did not precede, but followed deflation in business, and therefore could not, as is often asserted, have been its cause.<sup>7</sup> Member bank reserves, it is true, reached their peak of \$1,871 million in February 1920, but earning assets of the Federal Reserve banks continued to rise, reaching \$3,396 million in October. Not until November did investments of member banks cease to rise or deposits begin to decline materially. It was a half year after the deflation in prices started before all the banking series were moving downward together. By that time gold was coming regularly into the country. The analysis of its impact upon the American economy is of fundamental importance in any account of the international gold standard

<sup>7</sup> This point is well made by L. A. Rufener, *Money and Banking*, pp. 581 ff., who observes that once credit inflation ceased business men began actively to deflate one another.

after the war. A uniform method of presenting the forces determining changes in the American credit base and superstructure facilitates the analysis of this problem.

*The American Credit Base and Credit Superstructure, Method of Presentation*

In a series of tables (for the basic figures see Ap. Table 2) we present the factors of change in member bank reserve accounts and in the deposits, exclusive of interbank deposits, of all banks in the United States according to the following general plan:

We assume that increases in

- 1) monetary gold stock
- 2) treasury currency
- 3) government securities held by the Reserve banks
- 4) 'bills bought' held by the Reserve banks
- 5) bills discounted at the Reserve banks
- 6) Federal Reserve float

increase member bank reserve accounts, and that increases in

- 1) money in circulation outside the Reserve banks, the Treasury, and all banks reporting to the Comptroller of the Currency
- 2) cash in vault of all reporting banks
- 3) 'other deposits' of the Reserve banks
- 4) unexpended capital funds of the Reserve banks

decrease member bank reserve accounts. We further assume that increases in

- 1) monetary gold stock
- 2) treasury currency
- 3) commercial bank float
- 4) loans and discounts, exclusive of interbank loans (loans and discounts adjusted) of all reporting banks
- 5) investments
- 6) government securities held by the Reserve banks
- 7) 'bills bought' held by the Reserve banks
- 8) real estate owned by all reporting banks

increase the deposits, exclusive of interbank deposits (deposits adjusted) of all banks reporting to the Comptroller, and that increases in

- 1) money in circulation outside the Reserve banks, the Treasury, and all reporting banks
- 2) net indebtedness to foreign banks (excess of 'due to' over 'due from banks') of all reporting banks
- 3) capital funds of all reporting banks

decrease the deposits (adjusted) of all reporting banks.

This arrangement of the factors of change in the credit base and credit superstructure has certain disadvantages. Some of the data are not available for the dates chosen to mark the beginning and end of the periods analyzed, and to supply this lack we have estimated several of the items. This introduces several errors, in particular in the commercial bank float and cash in vault of all reporting banks, for these figures are available in the published sources for all banks only as of June 30 each year. Furthermore, certain assumptions concerning the influence of these factors upon commercial bank deposits have had to be made; that, e.g., purchases of government securities and bills by the Federal Reserve banks were all made from customers of banks rather than from banks directly. This also introduces small errors. In addition the assumption that gold imports increase deposits, and gold exports decrease them suffers from the inaccuracies already described (cf. Ch. 4). These expressions should be understood as a short way of saying "gold imports fix in the credit superstructure deposits created by exports," or the reverse.

On the other hand, this method of analysis has the great merit of separating those forces which play upon the credit base alone from those which affect the credit superstructure alone, and those which affect both the credit base and the credit superstructure. When the factors of change in the reserves of member banks and in the deposits (adjusted) of all banks, calculated on this basis, are presented for each succes-

sive period side by side, a clear picture is obtained of the intricate play of forces determining the behavior of bank deposits. When the calculated changes are compared with the actual changes the picture is found to be sufficiently accurate for the purposes to which the analysis is put.

*The Preservation of the Credit Base and the Maintenance of the Credit Superstructure, 1920-1922*

The first period to which this form of analysis is applied is the year beginning June 1920. As indicated, the peak of credit inflation in the United States was reached in the autumn of 1920 some months after the turning point in prices. At that time the member banks were heavily indebted to the Reserve banks, and the raising of the discount rates had put them under pressure to repay this debt. To do so they had in some way to get possession of reserve funds. At the same time foreigners were under pressure to reduce the unfunded trade balance accumulated in favor of the United States. To do so, as well as to pay for current American exports, they had in some way to get possession of American commercial bank deposits. Both these needs were met by the gold imports whose origins we have described. These began on a small scale in April, May, and June 1920. There were net exports in July and August, but from September on, the inward movement became regular and substantial.

THE ASSIMILATION OF GOLD IMPORTS, 1920-1921

From June 30, 1920 to June 30, 1921 gold coin and bullion in the United States increased \$535 million, yet the credit base of the commercial banking system declined \$228 million, and the deposits of the public at all banks reporting to the Comptroller of the Currency declined \$2,158 million (Table 22). The changes during the year were remarkable and may be summarized in round figures as follows:

The public was required to give up \$3,000 million in deposits in order to repay loans and advances to, and to buy



TABLE 22

*American Credit Base and Credit Superstructure  
Factors of Change*

## THE CREDIT BASE

TRANSACTION <sup>1</sup> (millions of dollars)	EFFECT ON MEMBER BANK RESERVE ACCOUNTS	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 526 million)	+535	<sup>2</sup>
Decrease in Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks	+427	
Decrease in Cash in Vault of All Reporting Banks	+130	
Increase in Treasury Currency	+57	
Decrease in Government Securities held by the Reserve Banks		-93
Decrease in Bills Bought held by the Reserve Banks		-359
Decrease in Bills Discounted at the Reserve Banks		-680
Decrease in Federal Reserve Float		-110
Increase in Unexpended Capital Funds of the Reserve Banks		-85
	+1,149	-1,327
Decrease in Member Bank Reserve Accounts due to these Items	-178	<sup>2</sup>
Actual Decrease in Member Bank Reserve Accounts	-228	

<sup>1</sup> The recorded reduction of \$40 million in Other Deposits at the Federal Reserve Banks during this period is not included in this calculation, since Foreign Credits were included in Other Deposits in June 1920 and changes in the amount of these credits would not be reflected at once or directly in Member Bank Reserve Accounts.

<sup>2</sup> The large discrepancy between the calculated and the actual change in Member Bank Reserve Accounts is probably due to the exclusion from this item of gold bullion and foreign gold coin in the Federal Reserve Banks and the inclusion of gold under earmark. For changes in the practice of the Treasury in computing

securities from, banks. Since part of the advances so repaid had been made in the form of commercial bank float, and since part of the securities were bought from the Reserve banks, the reduction in the loans and investments of the commercial banks was only about \$2,200 million. On the other hand, the public had received in exchange for currency, foreign exchange, and foreign obligations about \$1,100 million

TABLE 22

*June 30, 1920—June 30, 1921, a Period during which Gold was flowing in and the Federal Reserve Banks were making Moderate Sales of Government Securities*

## THE CREDIT SUPERSTRUCTURE

TRANSACTION (millions of dollars)	EFFECT ON DEPOSITS (EXCL. INTERBANK DEPOSITS) OF ALL BANKS REPORTING TO THE COMPTROLLER	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 526 million)	+535	
Decrease in Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks	+427	
Decrease in Treasury Currency	+57	
Decrease in Commercial Bank Float (incomplete)		-334
Decrease in Net Indebtedness of All Reporting Banks to Foreign Banks (estimated) <sup>3</sup>	+99	
Decrease in Loans plus Investments (adj.) of All Reporting Banks		-2,172
Decrease in Government Securities held by the Reserve Banks		-93 <sup>4</sup>
Decrease in Bills Bought held by the Reserve Banks		-359
Increase in Real Estate owned by All Reporting Banks	+146	
Increase in Capital Funds of All Reporting Banks		-267
	+1,264	-3,225
Decrease in Deposits (adj.) of All Reporting Banks due to these Items	-1,961	
Actual Decrease in Deposits (adj.) of All Reporting Banks	-2,158	

the item 'gold coin and bullion' in the Circulation Statement, cf. *Annual Report of the Secretary of the Treasury, 1928*, p. 552, Table 61, note 1.

<sup>3</sup> This item is calculated in this table and in Tables 23 and 24 from the published figures of Due to and Due from Banks in the Annual Reports of the Comptroller of the Currency.

<sup>4</sup> This item is too large to the extent that it includes Government Securities sold by the Reserve Banks to banks rather than to the public. This qualification applies to this item in Tables 23-7, 34, 38, 39-42, 64, 74-5.

in deposits so that their net loss of deposits was only \$2,200 million.

The commercial banks, by purchase of gold with the foreign exchange and foreign claims acquired from the public, and by receipt of currency from circulation, came into possession of \$1,000 million in reserve funds. This enabled them to meet drafts on their reserve accounts with the Federal Re-

serve banks of \$600 million due to operations of the Federal Reserve banks, and to reduce their rediscounts with the Federal Reserve banks \$700 million, with a net loss of only \$100 million in their cash in vault and of only \$200 million in their reserve balances. This reduction in reserve balances represented approximately the reduction in the required reserves of member banks.<sup>8</sup>

The Federal Reserve banks lost \$1,100 million in earning assets, and their required reserves were reduced \$200 million. They increased their gold reserve \$500 million; therefore their excess reserve was raised \$700 million, from \$250 million to \$950 million, and their reserve ratio rose from 43.6 to 60.8 per cent (Ap. Table 2 C).

Without gold imports the large reduction in the rediscounts of the Federal Reserve banks and in the bills payable of the commercial banks could have been accomplished only by a much greater reduction than \$200 million in reserve balances. That would have meant severe deflation of bank credit in order to reduce commercial bank deposits sufficiently to bring required reserves down to the level of actual reserves. Even if the rediscounts of the Federal Reserve banks and the bills payable of the commercial banks had not been reduced at all, and the reduction in commercial bank loans and discounts had been no greater than that actually experienced, deposits (adjusted) in the absence of gold imports, would have had to fall much more than \$2,200 million.

#### INCIPIENT INFLATION, 1922

The situation that prevailed during the first year of the post-war gold inflow into the United States began to change late in 1921. During the year of severe depression manufacturing production had been curtailed much more than the production of raw materials, especially of farm products such as wheat, and the relative advantage of manufactured products

<sup>8</sup> \$200 million is 10 per cent of \$2,000 million, the amount by which total deposits of the member banks declined (Ap. Table 2 B).

in the price structure had grown. Credit was abundant, costs were low, and the prospects of profit good. During 1922, therefore, production expanded more in industry than in agriculture, and more in construction than in industry. From 1921 to 1923 output per wage earner increased 13.6 per cent, and to this extraordinary increase in productive efficiency Dr. Mills attributes largely the rapidity of the recovery. Wholesale prices, which had been declining very slightly during the latter half of 1921, began to rise slowly in February 1922, and then more rapidly. During May, June, and July the increase was very great, 8.4 per cent in three months. By the summer of 1922 the expectation and hope of Great Britain that the path to the return to gold would be smoothed by an inflationary movement in the United States stimulated by gold imports seemed to be on the eve of being realized. This was an inference that could be drawn with considerable justification from the position of the American banking system.

During the second half of 1921 gold continued to pour into the country. The return of currency from circulation also continued. Consequently, the commercial banks were able to reduce their indebtedness to the Federal Reserve banks still further. In this they were aided by an increase in the portfolio of 'bills bought' by the Federal Reserve banks. By December 1921 rediscounts had fallen to \$1,144 million, a decline in six months of \$607 million. Certain Federal Reserve banks, finding it difficult to meet expenses with reduced earning assets, began vigorously to purchase government securities in January 1922, and in six months increased their holdings \$400 million. Gold continued to flow in and currency to be retired, and these three influences combined resulted in a still further reduction in bills discounted to \$461 million at the end of June 1922. In the absence of other offsetting factors they also built up commercial bank deposits.

Table 23 shows the influences playing upon the credit base and credit superstructure during this year of revival. Between June 30, 1921 and June 30, 1922 the public received deposits

TABLE 23

*American Credit Base and Credit Superstructure  
Factors of Change*

## THE CREDIT BASE

TRANSACTION (millions of dollars)	EFFECT ON MEMBER BANK RESERVE ACCOUNTS	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 440 million)	+556	<sup>1</sup>
Decrease in Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks	+331	
Decrease in Cash in Vault of All Reporting Banks	+117	
Increase in Treasury Currency	+108	
Increase in Government Securities held by the Reserve Banks	+296	
Increase in Bills Bought held by the Reserve Banks	+121	
Decrease in Bills Discounted at the Reserve Banks		-1,290
Decrease in Federal Reserve Float		-13
Increase in Other Deposits at the Reserve Banks		-19
Decrease in Unexpended Capital Funds of the Reserve Banks	+61	
	+1,590	-1,322
Increase in Member Bank Reserve Accounts due to these Items	+268	<sup>1</sup>
Actual Increase in Member Bank Reserve Accounts	+217	

<sup>1</sup> The discrepancy of over \$100 million between changes in gold coin and bullion and gold imports is probably due to the inclusion by the Treasury of gold bullion and foreign gold coin in the Federal Reserve Banks in 'gold coin and bullion' in its Circulation Statement of June 30, 1922. Additions to the gold holdings of the Reserve Banks were \$554 million as compared with gold imports of \$440 million. The Federal Reserve Banks were gaining gold regularly month by month faster than gold imports. This does not appear to be due to a substitution of Federal Reserve Notes for gold certificates, since changes in the circulation are accounted for as follows:

amounting to over \$2 billion in exchange for foreign exchange and currency, from bank advances and from the sale of securities to banks. Since probably \$600-700 million of these deposits were due to open market purchases by the Federal Reserve banks and to an increase in commercial bank float, and \$900 million resulted from the sale of gold and foreign exchange and the deposits of currency, only \$400-500 million of the entire increase of \$2,000 million were due to

TABLE 23

*June 30, 1921—June 30, 1922, a Period during which Gold was flowing in and the Federal Reserve Banks were actively buying Government Securities*

## THE CREDIT SUPERSTRUCTURE

TRANSACTION (millions of dollars)	EFFECT ON DEPOSITS (EXCL. INTERBANK DEPOSITS) OF ALL BANKS REPORTING TO THE COMPTROLLER	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 440 million)	+556	
Decrease in Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks	+331	
Increase in Treasury Currency	+108	
Increase in Commercial Bank Float (incomplete)	+320	
Increase in Net Indebtedness of All Reporting Banks to Foreign Banks (estimated)		-32
Increase in Loans plus Investments (adj.) of All Reporting Banks	+435	
Increase in Government Securities held by the Reserve Banks	+296 <sup>2</sup>	
Increase in Bills Bought held by the Reserve Banks	+121	
Increase in Real Estate owned by All Reporting Banks	+230	
Increase in Capital Funds of All Reporting Banks		-218
	+2,397	-250
Increase in Deposits (adj.) of All Reporting Banks due to these Items	+2,147	
Actual Increase in Deposits (adj.) of All Reporting Banks	+2,027	
Decline in Federal Reserve Notes -496	Return from Circulation	+331
Decline in Federal Reserve Bank Notes -65	Increase in Treasury Currency	+108
-561	Decline in Cash in Vault	+117
		+556

A gradual release of gold from earmark would explain this discrepancy; cf. Table 22, note 2.

<sup>2</sup>This item is too large to the extent that it includes Government Securities bought by the Federal Reserve Banks from banks rather than from the public. This qualification applies to this item in Tables 24-7, 34, 38, 39-42, 64, 74-5.

credit extensions by the commercial banks themselves. This \$400-500 million increase in loans and investments was the net result of a reduction in loans and discounts of between \$500 and \$600 million and an increase of \$1,000 million in investments. During one year the public increased its bank deposits \$2 billion and at the same time reduced its direct indebtedness to banks nearly \$600 million.

The commercial banks, by the purchase of gold mainly

with foreign exchange acquired from the public, through the receipt of currency from circulation and from the Treasury, and as a result of open market purchases by the Federal Reserve banks, came into possession of \$1,400 million of reserve funds. They utilized these, in conjunction with a reduction of \$100 million in their cash in vault, to reduce their rediscounts at the Federal Reserve banks \$1,300 million, and to increase their reserve accounts \$200 million. This increase in member bank reserve accounts was approximately the amount required by the increase in member bank deposits. At the same time the commercial banks reduced their bills payable over \$1.5 billion, of which the major constituent was the reduction in rediscounts with the Federal Reserve banks (Ap. Table 2 A and B).

The Federal Reserve banks lost \$800 million in earning assets in spite of an increase in their open market portfolio of \$400 million. Their required reserve fell \$100 million as a result of an increase of \$200 million in their deposits liability and a decline of \$500 million in their note liability. Their gold holdings at the same time increased \$500 million, which led to an increase of \$600 million in their excess reserve, and to an increase in their reserve ratio from 60.8 to 77.9 per cent (Ap. Table 2 C).

From June 1921 to June 1922 the main effect of gold imports upon the credit base was, as in the preceding year, to preserve it, and to change the composition of the central banking assets held against it. Because of the reversal of the other forces which, in the preceding year, had tended to reduce commercial bank deposits, the full effects of gold imports in expanding commercial bank deposits without an increase in loans and investments were reflected directly in the statements of the commercial banks. Gold imports in 1921-22 preserved the credit base and increased the credit superstructure.

CHANGES IN THE CREDIT BASE AND CREDIT SUPERSTRUCTURE,  
1920-1922, SUMMARY

The American economy passed through great depression and rapid recovery between June 1920 and June 1922. During this whole period gold was coming into the country. Its effect upon the American banking system has been traced in considerable detail in order to make clear its contribution to the remarkable divergence between the behavior of bank credit, as shown in Appendix Tables 1 and 2, and the behavior of prices.

Between June 1920 and June 1922 the deposits of the public declined only \$100 million, but its direct indebtedness to banks declined by the extraordinary amount of \$2,900 million.

The commercial banks, while maintaining almost unchanged their reserves with the central institutions and their obligations to the public, reduced their bills payable \$2,200 million, and their loans and investments \$2 billion. After a rough allowance for interbank indebtedness, the reduction in loans and investments was \$1,700 million, made up of a reduction in loans and discounts to the public of \$2,900 million and an increase in investments of \$1,200 million.

There was no change of moment in the portfolio of the Federal Reserve banks and in their deposit liabilities, but they had lost \$2 billion in earning assets through repayment of rediscounts. This loss was offset partly by an increase of \$1 billion in gold and partly by a reduction of \$1 billion in their note liability.

Though wholesale prices declined 38 per cent and total money in circulation declined 19 per cent,<sup>9</sup> yet the deposits of the Federal Reserve banks and of all member banks were greater than, and the deposits of all the banks in the United

<sup>9</sup> The U. S. Bureau of Labor Statistics index of wholesale prices was 243 in June 1920 and 150 in June 1922 (1913 = 100). Federal Reserve notes declined 32 per cent, but total money in circulation declined only 18 per cent.



States were nearly as great at the end of the period as at the beginning. In bringing about these results gold imports and currency withdrawals played roles of about equal importance.

In spite of the decline in prices commercial bank deposits and reserves were as great in June 1922 as at the peak of the post-war boom. The deposits were to a smaller degree the result of the loans and investments of the commercial banks, and the proportion due to loans was smaller relatively to the proportion due to investments than in 1920 (Ap. Table 1). The reserves were to a smaller degree the result of the loans and investments of the Federal Reserve banks, and the proportion due to Reserve bank loans was smaller than the proportion due to Reserve bank investments. Not only had there been no contraction in reserves and deposits, but the commercial banks had become more independent of the central bank, and the public had become more independent of the commercial banks.

From June 30, 1920 to June 30, 1921 'loans and investments (adjusted)' had fallen slightly less than 'deposits (adjusted)' and the ratio between them moved slightly closer to the pre-war ratio. Loans and discounts had declined rapidly but there was no change in investments; therefore investments had become a larger proportion of deposits, and loans and discounts a smaller proportion. In contrast, from June 30, 1921 to June 30, 1922 investments increased very rapidly. The decline in the government bond holdings of the banks, welcomed in 1920 and 1921 as a sign of a return to normal, stopped and was replaced by a rapid increase which lasted during the entire calendar year 1922, carrying this figure back almost to the 1919 peak. During the early and most rapid period of the recovery the public were able to build up their deposits, not only in the ways previously described, but also by selling government bonds to the banks.<sup>10</sup> Meanwhile, loans

<sup>10</sup> For a discussion by the writer of the forces leading to concentration of government bond holdings in the hands of banks see Beckhart, *op. cit.*, IV, 377 ff.

and discounts continued to decline. As in 1919-20 investments and 'loans and discounts' were moving in opposite directions, with consequent changes in the ratios. In part, the changes of 1921-22 were due to a reversal of factors that produced the changes of 1919-20, but in a much larger measure they were due to the fact that the commercial banks had built up deposits by the purchase of large amounts of reserve funds in the form of currency and gold. The changes of 1921-22 had the quality of permanence.

The effect of gold imports and currency withdrawals upon the potential lending power of the banking system as a whole had meanwhile been very great, as is shown by the increase in the excess reserves of the Federal Reserve banks of \$1,400 million, the increase in their reserve ratio from 43.6 to 77.9 per cent.

#### *Beginnings of Credit Control, 1922-1924*

Faced by a situation in which prices were showing unmistakable evidences of an incipient inflation, and in which the banks were technically in a position to respond to almost any demands that might be made upon them, the Federal Reserve system began in 1922 to develop measures of credit control.

#### ESTABLISHMENT OF AN APPREHENSION POINT

The first of these measures was an effort to deal with the problems created by the rapid increase in its own reserve ratios. An attempt was made to use the hand-to-hand circulation of the country as a means of establishing a psychological or customary 'normal' reserve ratio to perform the economic functions no longer performed by the legal minimum reserve. The authorities of the Federal Reserve system recognized the exceptional character of the gold inflow into the United States. They felt that in a sense much of this gold was 'held in trust' by the United States for other countries, and that it would be necessary and desirable to part with it later. They recognized also the ease with which the public mind becomes accustomed

to any given reserve ratio at a central bank. Just as during the war the British public had become habituated to thinking of a Bank of England proportion of 20 per cent instead of one of 40 to 50 per cent as adequate and safe, so the American public might easily come to regard a ratio of 70 or 80 per cent at the Federal Reserve banks as necessary, desirable, and 'normal.' The Federal Reserve banks, therefore, wished to prepare for a time of future gold exports, or in the language of post-war discussion, of gold redistribution. They wished to put themselves in a position to meet exceptional demands for gold without a rapid decline in published gold reserve ratio figures to which the public had become accustomed. They wished further to provide some basis from which to measure 'surplus' or 'deficit' gold reserves, to replace the legal definitions of such surpluses and deficits which were no longer serviceable as a guide to policy. In the words of Governor Strong of the Federal Reserve Bank of New York, they wished to lower the 'apprehension point,' and also to restore to the reserve ratio of the Federal Reserve banks some of its technical usefulness as a guide to credit policy. The technical means decided upon to accomplish these purposes was the replacement of Federal Reserve notes by gold certificates in the general circulation.

In his testimony before the Royal Commission on Indian Currency and Finance (V, 308), Governor Strong gave his reasons for this policy:

- 1) to prevent people from discriminating against Federal Reserve notes in favor of gold certificates as the latter became rare;
- 2) to avoid inflationary agitation which might be encouraged by the existence of a very high Federal Reserve ratio;
- 3) to prevent the people from becoming habituated to a very high ratio, and therefore from becoming alarmed if this were later reduced by a redistribution of gold—in other words, to reduce the 'apprehension point';
- 4) to fix the amount of gold in circulation and therefore permit changes in the country's gold supply to be reflected in changes in the Federal Reserve banks' gold holdings.

Given the objective of a stable reserve ratio at the Federal Reserve banks, the amount of gold certificates put into circulation in place of Federal Reserve notes was the resultant of changes in the deposit liabilities of the Federal Reserve banks and in the demand of the public for currency. During the two years following the decision to fix an 'apprehension point' at the Federal Reserve banks, the changes in their deposit liabilities and in the demands upon them for notes were of such a character that almost all the gold brought to them had to be passed on into circulation to avoid substantial changes in their ratios. Gold certificates in circulation, therefore, began to rise in the last quarter of 1922 and mounted steadily until the end of 1924. About \$700 million in gold certificates were put into circulation, an amount approximately equal to the increase in the monetary gold stocks of the country, which also continued to mount until the inward flow of gold was finally interrupted in December 1924. The similarity in the two figures gave plausibility to the view that a gold sterilization policy was being followed. This view, however, was mistaken. The substitution of gold certificates for Federal Reserve notes changed both the composition of the American hand-to-hand currency and the reserve ratios of the Federal Reserve banks. It did not change the amount of money in circulation, nor did it have any effect upon the reserves of member banks.<sup>11</sup> Therefore it did not sterilize gold (cf. Ch. 4).

As a permanent feature of American banking policy the attempt to fix an apprehension point in 1922 was of little importance. The idea embodied in it, however, that a psychological gold export point exists, was of great general significance in the post-war history of the gold standard. There are three elements in the concept of normal reserve ratios—the legal, the economic, and the psychological 'normal.' In the

<sup>11</sup> For a detailed discussion of this point cf. Brown, *op. cit.*, pp. 151-5; also C. O. Hardy, *Credit Policies of the Federal Reserve System* (Brookings Institution, 1932), pp. 37-8.

integrated and gradually developing gold standard system of pre-war days, these were united in a single figure. Compulsion of law, psychological reaction, and economic pressure as a general rule pointed to the same line of banking conduct when gold reserves approached a certain level. After the war this was no longer true, as was recognized by Governor Strong, and later by Dr. Schacht when he began to substitute gold for foreign exchange in the reserves of the Reichsbank in 1928 in order that the true seriousness of loss of reserves might be felt by the German business community.<sup>12</sup> It was recognized by the governors of the central banks of some of the Balkan countries after 1931 when they tried to preserve foreign exchange in the legal reserves of their banks in order to prevent routine losses of reserves from appearing on their books as losses of gold and having disastrous psychological effects on the public mind.<sup>13</sup> It was even implicit in the action of the Cunliffe Committee when they fixed £150 million as the minimum gold reserve to be accumulated at the Bank of England before a return to gold was possible, not on the basis of an economic calculation leading to this particular figure, but because *some* figure was necessary.

#### SHIFTING FROM THE OPEN MARKET TO THE DISCOUNT SHOULDER

In 1922 the Federal Reserve system began to develop a technique of credit control later described by Governor Strong as shifting from the open market to the discount shoulder. This technique was to prepare the way for changes in discount rates and to make them effective by open market purchases and sales of securities. It did not contemplate making substantial inroads upon existing reserves, but relied for its effectiveness on the traditional unwillingness of American banks to be in debt. It was a policy of supplementing discount rate changes by changes in the composition of the portfolio of the Federal Reserve banks.

<sup>12</sup> Cf. Ch. 16, *The Modification of the Principle of Gold Economy*.

<sup>13</sup> Cf. Ch. 32, *The Fate of the Gold Exchange Standard*.

We do not intend to review the many admirable published discussions of this developmental period in Federal Reserve credit policy or to repeat or appraise the statements and testimony of Federal Reserve officials concerning its details and objectives, but rather to point out the way in which the import of about three-quarters of a billion dollars of gold into America during the first complete cycle of this policy influenced the basis and superstructure of American credit.

Between June 1922 and July 1923 the Federal Reserve banks sold \$525 million of government securities. From July 1923 to December 1923 they took no initiative in the market, but from December 1923 to September 1924 they repurchased \$510 million of government securities. In both amount and composition the portfolio of the Federal Reserve banks was almost the same in October 1924 as in June 1922.<sup>14</sup> At the same time, by regular monthly increments the monetary gold stock of the country increased \$763 million.

By observing the influences at work on both the credit base and credit superstructure between dates that approximate the beginning and end of the major phases in this cycle of open market policy, and for the entire cycle, the impact of the incoming gold upon the banking system may be appraised. The most convenient dates for which figures for member banks and all banks reporting to the Comptroller are available are June 30, 1922, June 30, 1923, December 31, 1923, and October 10, 1924 (Ap. Table 2). Most of the open market sales fall between the first two dates, and most of the open market purchases between the last two. The factors of change for these two periods and the interval between them are shown in Tables 24, 25, and 26.

<sup>14</sup>In amount it was also almost exactly the same as in June 1920. The period under consideration, however, was really the first cycle in open market policy, for the decline in the portfolio after June 1920 was due largely to the retirement of Pittman Act certificates and the maturing of bills bought, while the subsequent increase was due to uncoordinated purchases of securities to increase earnings.

Open Market Sales, June 30, 1922 to June 30, 1923. Open market sales of securities to check what Governor Strong called "speculative unhealthy developments" were first carried out in 1922 by individual Reserve banks, but machinery was at the same time set up for effective unified action by the system. It took the form of the Open Market Committee which began to function in March 1923.<sup>15</sup> As securities were sold, rediscounts increased and the way was prepared for an effective increase in the discount rate from 4 to 4½ per cent in February 1923. With higher interest rates more bills were brought to the Reserve banks and the shift from the open market to the discount shoulder was about equal to the amount of government securities sold less the increase in bills bought.

In the absence of gold imports, the same amount of security sales would have forced a much larger increase in rediscounts; otherwise, there would have had to be a reduction in the credit base and a correspondingly large reduction in the credit superstructure, for during this year the reserves of the commercial banks were subject to an additional drain caused by an increase in currency in circulation. After a lag of about six months currency in circulation began to follow the increase in prices,<sup>16</sup> but the reduction in reserves from this source was fully offset by gold imports and by increases in Treasury Currency which marked the virtual completion of the government's silver repurchases under the Pittman Act.

During the first major effort of the Federal Reserve system to check an incipient inflation, therefore, member bank balances actually increased a little, though the composition of the assets of the Federal Reserve banks was changed by a shift of \$375 million from the open market to the discount shoulder. The only pressure for contraction felt by the banking

<sup>15</sup> Cf. *Hearings on H. R. 7895, 1926, Part I, pp. 330-5* and Beckhart, *op. cit.*, IV, 740.

<sup>16</sup> *Hearings*, p. 332, chart. This chart shows also the similar lag in the adjustment of the currency to the declining price level after June 1920.

system was a moderate increase in its indebtedness at a somewhat higher cost (Table 24).

The superstructure of bank credit was meanwhile undergoing changes of a rather striking character. 'Deposits (adjusted)' of all banks in the United States increased \$2,754 million, or 7.3 per cent, while 'loans and investments (adjusted)' increased \$3,784 million, or 9.04 per cent. These increases raise two important questions:

- 1) How, during a period of heavy open market sales by the Federal Reserve banks, could commercial bank deposits increase so rapidly?
- 2) Why did 'deposits (adjusted)' increase nearly one billion dollars less than 'loans and investments (adjusted)'?

The answer to the first question is twofold. Open market sales were only part of an operation which, in its net effect, did not decrease actual reserves, and the banks, by converting demand deposits into time deposits, diminished required reserves. Both demand and time deposits of member banks rose substantially from June to December 1922, but from December 1922 to June 1923 demand deposits declined, while time deposits increased still further. For the full year the increase in member bank deposits was \$1,537 million, of which \$1,349 million was in time deposits. The large increase in deposits of all banks, while the cash base was increasing only very slightly, was possible because of a growth in time deposits requiring a smaller reserve.

The answer to the second question is found in certain special influences tending to reduce the deposits of the public:

- 1) an increase in currency in circulation
- 2) a flight of capital from Europe due to the crisis culminating in the invasion of the Ruhr and the collapse of the German mark<sup>17</sup>
- 3) the change in the composition of the Federal Reserve banks

<sup>17</sup> Cf. *infra*, The Falling Dollar, 1922-23. A rough measure of the effects of such international capital flights upon individual deposits is found in changes in the net indebtedness of American to foreign banks, as indicated by changes in the difference between the items 'due to' and 'due from banks.'



TABLE 24

*American Credit Base and Credit Superstructure  
Factors of Change*

## THE CREDIT BASE

TRANSACTION (millions of dollars)	EFFECT ON MEMBER BANK RESERVE ACCOUNTS	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 235 million)	+265 <sup>1</sup>	
Increase in Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks		-392
Decrease in Cash in Vault of All Reporting Banks	+32	
Increase in Treasury Currency	+105	
Decrease in Government Securities held by the Reserve Banks		-454
Increase in Bills Bought held by the Reserve Banks	+44	
Increase in Bills Discounted at the Reserve Banks	+375	
Decrease in Other Deposits at the Reserve Banks	+1	
Decrease in Unexpended Capital Funds of the Reserve Banks	+7	
	+829	-846
Decrease in Member Bank Reserve Accounts due to these Items	-17	
Actual Increase in Member Bank Reserve Accounts	+31	

<sup>1</sup> Cf. Table 22, note 2.

portfolio (a shift from the open market to the discount shoulder, though it has no effect upon reserves, reduces deposits)  
4) a large decrease in commercial bank float.

The first of these items was fully offset by the increase in deposits due to gold imports and the increase in Treasury Currency. The last three, amounting in all to almost one billion dollars, explain the difference between the behavior of deposits and of loans and discounts (Table 24).

At the conclusion of the first large open market operation directed to restrict the growth of bank credit, the possibility of a very great increase in deposits without any further increase in loans and investments was latent in the banking system because the temporary influences holding down deposits (adjusted) were subject to rapid reversal.

TABLE 24

*June 30, 1922—June 30, 1923, a Period during which the Federal Reserve System was actively selling Government Securities*

## THE CREDIT SUPERSTRUCTURE

TRANSACTION (millions of dollars)	EFFECT ON DEPOSITS (EXCL. INTERBANK DEPOSITS) OF ALL BANKS REPORTING TO THE COMPTROLLER	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 235 million)	+265	
Increase in Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks		-392
Increase in Treasury Currency	+105	
Decrease in Commercial Bank Float (incomplete)		-320
Increase in Net Indebtedness of All Reporting Banks to Foreign Banks (estimated)		-214
Increase in Loans plus Investments (adj.) of All Reporting Banks	+3,784	
Decrease in Government Securities held by the Reserve Banks		-454
Increase in Bills Bought held by the Reserve Banks	+44	
Increase in Real Estate owned by All Reporting Banks	+156	
Increase in Capital Funds of All Reporting Banks		-222
	+4,354	-1,602
Increase in Deposits (adj.) of All Reporting Banks due to these Items	+2,752 <sup>2</sup>	
Actual Increase in Deposits (adj.) of All Reporting Banks	+2,754 <sup>2</sup>	

<sup>1</sup> The very close correspondence of these two figures is accidental.

No Open Market Initiative, June 30, 1923 to December 31, 1923. During these six months no affirmative credit control policy was expressed through open market purchases and sales of securities, but it was a critical time in the history of the post-war gold standard, for a situation was developing in America that led to decisions of the greatest national and international importance. Unfortunately, year-end seasonal factors included in the December 31 figures somewhat obscure the underlying development.

Because relatively high interest rates prevailed and also because of the seasonal increase in outstanding acceptances in the autumn, bills were brought in large amounts to the Federal Reserve banks for purchase. At the same time member bank reserves were being depleted in order to provide for

TABLE 25

*American Credit Base and Credit Superstructure  
Factors of Change*

## THE CREDIT BASE

TRANSACTION (millions of dollars)	EFFECT ON MEMBER BANK RESERVE ACCOUNTS	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 180 million)	+198 <sup>1</sup>	
Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks (partly estimated)	No change	
Increase in Cash in Vault of All Reporting Banks (estimated)		-221
Increase in Treasury Currency	+44	
Increase in Government Securities held by the Reserve Banks	+32	
Increase in Bills Bought held by the Reserve Banks	+149	
Decrease in Bills Discounted at the Reserve Banks		-113
Decrease in Other Deposits at the Reserve Banks	+1	
Decrease in Unexpended Capital Funds of the Reserve Banks	+1	
	+425	-334
Increase in Member Bank Reserve Accounts due to these Items	+91 <sup>1, 2</sup>	
Actual Increase in Member Bank Reserve Accounts	+47	

<sup>1</sup> Cf. Table 22, note 2.<sup>2</sup> Cf. Table 39, note 1.

a seasonal increase in cash in vault held by all banks. Gold imports provided approximately the amount of new reserve funds needed to meet this drain, so that the sale of the bills to the Reserve banks enabled member banks to reduce their rediscounts. In this way about a third of the increase in rediscounts of the preceding period was shifted back to the open market shoulder, and member bank reserve accounts were increased \$47 million (Table 25). Meanwhile deposits (adjusted) increased \$1,556 million, though loans and investments rose only \$262 million. About half of the total increase was due to a seasonal change in commercial bank float. The

TABLE 25

*June 30, 1923–December 31, 1923, a Period during which the Federal Reserve System was not carrying out any Open Market Purchases or Sales of Government Securities of Substantial Importance*

## THE CREDIT SUPERSTRUCTURE

TRANSACTION <sup>3</sup> (millions of dollars)	EFFECT ON DEPOSITS (EXCL. INTERBANK DEPOSITS) OF ALL BANKS REPORTING TO THE COMPTROLLER	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 180 million)	+198	
Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks (partly estimated)	No change	
Increase in Treasury Currency	+44	
Increase in Commercial Bank Float (incomplete)	+775	
Increase in Loans plus Investments (adj.) of all Reporting Banks	+262	
Increase in Government Securities held by the Reserve Banks	+32	
Increase in Bills Bought held by the Reserve Banks	+149	
Increase in Real Estate owned by All Reporting Banks (½ of increase June 1923-June 1924)	+78	
Increase in Capital Funds of All Reporting Banks (½ of increase June 1923-June 1924)		-120
	+1,538	-120
Increase in Deposits (adj.) of All Reporting Banks due to these Items	+1,418	
Actual Increase in Deposits (adj.) of All Reporting Banks	+1,556	

<sup>3</sup> The item Increase or Decrease in Net Indebtedness to Foreign Banks has been omitted from this Table and from Tables 26, 34, and 38 because figures for All Reporting Banks are not published for dates other than June 30. No estimate can be derived from the Due to and Due from Banks of Member Banks only, for these items are influenced by the relations between member and non-member banks. shift of Federal Reserve bank credit from a form that did not to one that did increase deposits added \$181 million, and the continual growth of Treasury Currency and gold imports accounted for the rest.

These influences were no longer offset by a demand upon the banks for currency from the public. Although business was becoming less active and the country was gradually approaching a very sharp recession in production and trade, and bank failures in its agricultural areas were alarmingly frequent, almost every influence affecting commercial bank deposits was operating to increase them (Table 25).

Summary, June 30, 1922 to December 31, 1923. The results for a year of active open market sales of securities by the Federal Reserve banks followed by a half year in which these banks took no initiative in the market, were remarkable. While money in circulation and in bank tills increased more than half a billion dollars, and securities amounting to \$422 million were sold by the Federal Reserve banks, representing together a drain of one billion dollars upon the reserve funds of all banks, still member bank reserves actually increased \$78 million. Member banks were able to accomplish this result by acquiring reserve funds from the following four sources: gold, \$463 million; silver (Treasury Currency), \$149 million; sale of bills to the Reserve banks, \$193 million; and borrowing from the Reserve banks, \$262 million—in all, \$1,067 million. At the same time the loans and investments of all banks had increased \$4,046 million and their deposits \$4,310 million. Even if the entire increase in deposits due to the seasonal expansion of commercial bank float at the year-end is eliminated, deposits increased nearly \$3.5 billion owing to other causes. These results were possible only because the first phase of the first cycle of shifting from the open market to the discount shoulder was accomplished in the face of two major persistent forces of expansion—imports of the precious metals and an increase in time deposits.

In comparison with the total increases in currency and sales of government securities the increase in rediscounts of \$262 million was remarkably small, but on December 31, 1923 the member banks were still \$723 million in debt to the Reserve banks for direct advances extended at the relatively high rate of  $4\frac{1}{2}$  per cent. This amount would have been about \$100 million greater had it not been for a seasonal increase in bills bought at the close of the year. Even so, it is noteworthy that when the Federal Reserve banks began early in 1924 to replace their entire previous open market portfolio of securities, the American banking system had larger reserves than at the

beginning of the period of security sales, had increased its direct indebtedness to the Reserve banks by substantially less than the amount of those sales, and had increased its loans and investments and deposits due the public more than \$4 billion.

The situation developing in the United States and abroad that led to the decision to repurchase the securities previously sold by the Federal Reserve banks has been described in a memorandum written on Christmas 1924 by Governor Strong. This memorandum has often been quoted, but its importance in the history of the gold standard after the war justifies quoting its opening sections once again:<sup>18</sup>

"By the fall of 1923 the bulk of the short-time Government security holdings of the Federal reserve banks had been liquidated. The sales made throughout the previous year had forced member banks to borrow considerable sums from the Federal reserve banks in order to replace the reserves which they lost when payment for the securities was made to the Federal reserve banks. The fall of 1923 saw the members borrowing about \$835,000,000 on direct discounts from the reserve banks, of which over \$200,000,000 was in New York. At that time considerable importations of gold were being received from Europe. There was developing some recession in business; the New England textile manufacturers had suffered a severe slump; the same being to some extent true of rubber, some branches of the steel and of other trades. But the most serious difficulty which had developed in any part of the country was the banking situation in the West, especially in the Northwest and Southwest. Banks were failing almost every day.

Notwithstanding imports of gold, there was continued pressure by member banks to liquidate their indebtedness to the reserve banks, causing, in turn, pressure by member banks upon their borrowers to repay loans. The commercial paper rate was 5 per cent; rates for 90-day bankers' acceptances  $4\frac{1}{8}$  per cent; customers' loan rates at New York about  $5\frac{1}{4}$  per cent; time loans upon securities  $5\frac{1}{4}$  per cent; stock exchange call money  $4\frac{3}{4}$  per cent; the discount rate of the Federal reserve bank of New York

<sup>18</sup> *Hearings on H. R. 7895, Part I, pp. 335-6.*

was  $4\frac{1}{2}$  per cent, where it had been maintained since February 23, 1923.

The condition of the farming community, including the cattle industry, was coming perilously near a national disaster, and feeling became so strong throughout the West that all sorts of radical proposals for legislation and other Government relief were being urged.

Sterling had declined in November to \$4.26 under the influence of a general flight of capital from Europe to this country. Interest rates in London were lower than in New York. 'Money' (three-months bank bills) was quoted from 3 to  $3\frac{3}{8}$  per cent; tap rate on Treasury bills was  $2\frac{3}{4}$  to 3 per cent, and the official rate of the bank was 4 per cent.

It was under these conditions that the Federal reserve banks undertook the gradual repurchase of short time Government obligations. The following definite objects were in mind, at least so far as the writer was concerned:

- 1) To accelerate the process of debt repayment to the Federal reserve banks by the member banks, so as to relieve this weakening pressure for loan liquidation.
- 2) To give the Federal reserve banks an asset which would not be automatically liquidated as the result of gold imports so that later, if inflation developed from excessive gold imports, it might at least be checked in part by selling these securities, thus forcing member banks again into debt to the reserve banks and making the reserve bank discount rate effective.
- 3) To facilitate a change in the interest relation between the New York and London markets, without inviting inflation, by establishing a somewhat lower level of interest rates in this country at a time when prices were falling generally and when the danger of a disorganizing price advance in commodities was at a minimum and remote.
- 4) By directing foreign borrowings to this market to create the credits which would be necessary to facilitate the export of commodities, especially farm produce.
- 5) To render what assistance was possible by our market policy toward the recovery of sterling and the resumption of gold payment by Great Britain.

6) To check the pressure on the banking situation in the West and Northwest and the resulting failures and disasters.

The writer had roughly estimated that it might be possible for Europe to ship us still some \$400,000,000, which I thought would likely be distributed over a period of, say, two years, but that, notwithstanding these gold shipments, pressure for liquidation of bank loans would not be reduced promptly enough except it was accelerated through purchases of securities by the reserve banks.

In pursuance of this policy the Federal reserve banks gradually purchased over the following eight or nine months a total of \$500,000,000 of short-time Government securities, and throughout that period gradually reduced discount rates until the rate of the New York bank was 3 per cent, whereas the Bank of England on July 3, 1923, had raised its rate of discount to 4 per cent and exercised its influence to maintain open market rates in London at a somewhat higher level than during the previous year."

Open Market Purchases, December 31, 1923 to October 10, 1924. During the execution of this policy gold continued to flow into the country. There was no well established trend in the demand for currency, since these months came between the rapid increase following the rise in prices after the 1921 depression and the slow but persistent downward trend which prevailed from 1925 to 1929, but both currency outside the banks and cash in vault were seasonally lower at the end of this period. From December 31, 1923 to October 10, 1924 member banks came into possession of about \$900 million of reserve funds from open market operations, gold imports, and currency movements. Discount rates were progressively lowered, the New York Federal Reserve Bank rate being reduced from  $4\frac{1}{2}$  to 4 per cent on May 1, to  $3\frac{1}{2}$  per cent on June 12, and to 3 per cent on August 8. Lower money rates, together with a decline in business activity, resulted in a reduction of \$179 million in bills bought at the Federal Reserve banks. Member banks were also able to reduce their rediscounts \$457 million. The New York banks got completely out of debt to the central institution and for the first time since the 1921



TABLE 26

*American Credit Base and Credit Superstructure  
Factors of Change*

## THE CREDIT BASE

TRANSACTION (millions of dollars)	EFFECT ON MEMBER BANK RESERVE ACCOUNTS	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 258 million)	+300 <sup>1</sup>	
Decrease in Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks (partly estimated)	+104	
Decrease in Cash in Vault of All Reporting Banks (estimated)	+77	
Increase in Treasury Currency	+6	
Increase in Government Securities held by the Reserve Banks	+448	
Decrease in Bills Bought held by the Reserve Banks		-179
Decrease in Bills Discounted at the Reserve Banks		-457
Increase in Other Deposits at the Reserve Banks		-5
Decrease in Unexpended Capital Funds of the Reserve Banks	+22	
	+957	-641
Increase in Member Bank Reserve Accounts due to these Items	+316 <sup>1, 2</sup>	
Actual Increase in Member Bank Reserve Accounts	+291	

<sup>1</sup> Cf. Table 22, note 2.<sup>2</sup> Cf. Table 39, note 1.

depression the Reserve banks' earning assets declined substantially. This did not exhaust the new reserve funds placed in the hands of member banks, and member bank reserve accounts rose \$291 million (Table 26). For the first time since June 1920 it might be said that the text-book dictum 'gold flows in, bank reserves are increased' was exemplified in American practice. Also for the first time since June 1920 the phenomenon of excess commercial bank reserves, which had characterized the entire history of American banking from 1914 to that date, reappeared.<sup>19</sup>

<sup>19</sup> Cf. Beckhart, *op. cit.*, II, 37, chart.

TABLE 26

*December 31, 1923–October 10, 1924, a Period during which the Federal Reserve System was actively buying Government Securities*

## THE CREDIT SUPERSTRUCTURE

TRANSACTION (millions of dollars)	EFFECT ON DEPOSITS (EXCL. INTERBANK DEPOSITS) OF ALL BANKS REPORTING TO THE COMPTROLLER	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 258 million)	+300	
Decrease in Money in Circulation outside the Reserve banks, the Treasury, and All Reporting Banks (partly estimated)	+104	
Increase in Treasury Currency	+6	
Decrease in Commercial Bank Float (incomplete)		-658
Increase in Loans plus Investments (adj.) of All Reporting Banks	+2,504	
Increase in Government Securities held by the Reserve Banks	+448	
Decrease in Bills Bought held by the Reserve Banks		-179
Increase in Real Estate owned by All Reporting Banks (proportionate share of increase June 1924-June 1925)	+117	
Increase in Capital Funds of All Reporting Banks (proportionate share of increase June 1924-June 1925)		-210
	+3,479	-1,047
Increase in Deposits (adj.) of All Reporting Banks due to these Items	+2,432 <sup>3</sup>	
Actual Increase in Deposits (adj.) of All Reporting Banks	+1,956 <sup>3</sup>	

<sup>3</sup> The large discrepancy between these figures is partly accounted for by the omission of the item Increase in Net Indebtedness to Foreign Banks (cf. Table 25, note 3). There was probably a substantial increase in foreign bank balances in New York during this period.

Meanwhile, 'deposits (adjusted)' rose nearly \$2 billion, and 'loans and investments (adjusted)' rose \$2,500 million (Table 26). Most of this increase in the superstructure of bank credit took place in the latter part of the period when business activity had reached a low point, even though a second capital flight from Europe was in full progress.<sup>20</sup> The increase in deposits continued to be very largely in time deposits, and the increase in loans and investments was made up in about equal proportion of investments and loans.

<sup>20</sup> Cf. *infra*, The Flight from the Pound. The decline in industrial production in the United States was the sharpest ever recorded up to that time.

The Complete Cycle of Open Market Operations, June 30, 1922 to October 10, 1924. The cycle of open market operations begun by sales of securities in June 1922 to check incipient inflation was completed in the autumn of 1924 by the repurchase of these securities to help England return to the gold standard, to combat cyclical depression, and to replenish for future use the portfolio of the Federal Reserve banks. At the beginning and end of the cycle this portfolio was nearly the same in amount and composition. In its direct

	BILLS BOUGHT	GOVERNMENT SECURITIES	TOTAL
	(Millions of Dollars)		
June 30, 1922	161	555	717
October 8, 1924	175	581	756

effects upon reserve balances of member banks the great transaction was nearly neutral. Therefore persistent forces working upon the credit base and the credit superstructure during these two and a quarter years stand out very clearly in Table 27 which summarizes the factors of change for the whole cycle. The only force tending to reduce the reserves of member banks was an increase of about \$400 million in currency outside the banks and cash in vault, resulting from the adjustment of the circulation to the advance in general prices begun early in 1922.<sup>21</sup> On the other hand, the increase in the monetary gold stock, and in silver as expressed in the increase in Treasury Currency, provided the banks with about \$900 million of reserve funds. Together with the small increase resulting from Federal Reserve operations, these net additions to reserve funds were sufficient to allow a reduction of about \$200 million in rediscounts, taking the member banks almost completely out of debt to the Reserve banks, and still increase member bank reserve accounts by \$369 million.

Gold imports were not only the largest factor in the growth

<sup>21</sup> The adjustment took place with a time lag of about six months. The currency did not decline with the sharp but temporary fall in prices during the cyclical contraction of 1924.

of member bank reserves, but also an important offset to certain substantial influences that were tending to reduce the deposits of the public: (1) an increase in currency in the hands of the public of \$300 million, (2) a reduction in commercial bank float of about \$200 million, (3) an increase in net indebtedness to foreign banks of perhaps \$600 million, and (4) an increase in capital funds that exceeded the growth in real estate holdings by about \$200 million. These four factors reduced deposits (adjusted) by about \$1,300 million, but gold imports plus an increase in Treasury Currency of \$155 million added over \$900 million, and the net loss of deposits was only \$400 million. This explains the more rapid growth of 'loans and investments (adjusted)' than of 'deposits (adjusted)'. The former increased \$6,550 million and the latter \$6,266 million (Table 27).

Such an increase in bank credit on the basis of an addition of only \$369 million to member bank reserve accounts was made possible by the continued relatively rapid expansion of time deposits. The annual rate of growth of both 'loans and investments' and deposits was about 7.3 per cent, and not only was this *rate* of deposit expansion more rapid than that of the fifteen years before the war, but it *began* from the level of the peak of war and post-war inflation in spite of the large intervening decline in prices.<sup>22</sup>

<sup>22</sup> In *Hearings on H. R. 7895*, Part I, p. 473, a chart is presented as part of a prepared statement in defense of Federal Reserve policies submitted by Governor Strong, in which the growth of individual deposits of all banks from 1875 to 1925 is shown on a ratio scale. This indicates that for fifty years the annual rate of growth of individual deposits was 7 per cent, and that therefore the growth in deposits from 1922 to 1925 was in no way unusual. Concerning this chart five comments may be made:

- 1) The use of a straight line trend for so long a period is subject to criticism on statistical grounds.
- 2) The whole period of exceptionally rapid increase during the war and the period which is the subject of the comparison are included in the average.
- 3) During these fifty years the relative importance of the check as a means of payment increased greatly.
- 4) A 7 per cent annual increase starting from the peak of war and post-war inflation does not have the same significance as a 7 per cent annual increase

TABLE 27

*American Credit Base and Credit Superstructure  
Factors of Change*

## THE CREDIT BASE

TRANSACTION (millions of dollars)	EFFECT ON MEMBER BANK RESERVE ACCOUNTS	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 673 million)	+763 <sup>1</sup>	
Increase in Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks (partly estimated)		-288
Increase in Cash in Vault of All Reporting Banks (estimated)		-112
Increase in Treasury Currency	+155	
Increase in Government Securities held by the Reserve Banks	+26	
Increase in Bills Bought held by the Reserve Banks	+14	
Decrease in Bills Discounted at the Reserve Banks		-195
Increase in Other Deposits at the Reserve Banks		-3
Decrease in Unexpended Capital Funds of the Reserve Banks	+30	
	+988	-598
Increase in Member Bank Reserve Accounts due to these Items	+390 <sup>1</sup>	
Actual Increase in Member Bank Reserve Accounts	+369	

<sup>1</sup> Cf. Table 22, note 2.

These circumstances point to the conclusion that the restoration of the portfolio of the Federal Reserve banks in 1924 to the size and composition of June 1922 left the American banking system with dangerously large reserves and deposits.

*Delayed Gold Inflation*

Parallel with these potentially disturbing financial developments changes were taking place in the distribution of the stream of purchasing power that tended to undermine the

following a genuine deflation of bank credit in 1920-21 would have had.

5) A comparison of 1922-25 with 1900-15 shows a more rapid rate of growth in the post-war period.

TABLE 27

*June 30, 1922–October 10, 1924, a Period during which the Federal Reserve System bought and sold Government Securities in about Equal Amount*

## THE CREDIT SUPERSTRUCTURE

TRANSACTION (millions of dollars)	EFFECT ON DEPOSITS (EXCL. INTERBANK DEPOSITS) OF ALL BANKS REPORTING TO THE COMPTROLLER	
Increase in Gold Coin and Bullion in the U.S. (gold imports, 673 million)	+763	
Increase in Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks (partly estimated)		-288
Increase in Treasury Currency	+155	
Decrease in Commercial Bank Float (incomplete)		-203
Increase in Net Indebtedness to Foreign Banks (incomplete)		-214 <sup>2</sup>
Increase in Loans plus Investments (adj.) of All Reporting Banks	+6,550	
Increase in Government Securities held by the Reserve Banks	+26	
Increase in Bills Bought held by the Reserve Banks	+14	
Increase in Real Estate owned by All Reporting Banks (partly estimated)	+351	
Increase in Capital Funds of All Reporting Banks (partly estimated)		-552
	+7,859	-1,257
Increase in Deposits (adj.) of All Reporting Banks due to these Items	+6,602	
Actual Increase in Deposits (adj.) of All Reporting Banks	+6,266	

<sup>2</sup> A substantial addition should probably be made to this item to allow for the effect of the capital flight to the United States of early 1924.

stability of the American price structure and that created a strong economic pressure for an expansion of exports. The impact of gold imports on the banking system at the same time had changed the relations between the banks and industry and commerce in such a way as to make the banks eager to find new outlets for their available funds and consequently both able and willing to finance such exports on a large scale.

## THE AMERICAN PRICE STRUCTURE, 1922–1924

During the recovery following the 1920–21 depression the benefits of increased technical efficiency were not being passed

on fully to the consumer. Prices of consumer goods remained relatively high, while those of raw materials and agricultural products remained relatively low. This double advantage enjoyed by the manufacturer led to a demand for capital goods that caused a rapid fixation of capital in the United States at a high level of costs. Dr. Mills has described the whole period 1922-29 as one of low prices of the materials of fabrication, relatively low incomes of raw material producers and farmers, high cost of living, high prices of manufactured goods, high industrial wages, high profits, and relatively high cost of manufacturing equipment and high costs of construction. These are elements in an era of manufacturing and urban prosperity only as long as they do not undermine the purchasing power of large groups and destroy important outlets for the products of industry. Such a result appeared imminent late in 1923.

The rapid rise in wholesale prices that began in January 1922 was at first due to a rise in agricultural prices, but during the incipient inflation of April to July 1922 it was a rise in non-agricultural prices exclusively. The gap between agricultural and industrial prices was widened very materially. During the next year, when the policy of the Federal Reserve banks was one of contraction and the foreign markets for American products were disturbed by major financial and political crises, the 'scissors' closed somewhat, but never very much. By the end of 1923 agricultural prices began to decline again and the 'scissors' to open wider. The symptoms of economic disequilibrium noted by Governor Strong began to appear upon the surface. In the early summer of 1924 both agricultural and non-agricultural prices were falling. The Bureau of Labor Statistics wholesale price index reached 145 in June 1924, a decline of 9.6 per cent since April of the preceding year. The foundations of urban and manufacturing prosperity seemed to be crumbling, and industrial production suffered one of the sharpest declines in American history.

At this juncture occurred a combination of circumstances that has often played a role in American economic history—

poor crops abroad and good crops in the United States. Together with the reopening of the American capital market to foreign borrowers that followed the successful German stabilization, this altered the complexion of affairs. The wholesale price index began to rise in midsummer 1924, and at the close of the year the Bureau of Labor Statistics index was 156, just about the level of July 1922. This was almost wholly due to improvement in agricultural prices.

The short American business cycle of 1922-24 was thus characterized by the absence of any marked net change in prices, and by a closing of the gap between agricultural and non-agricultural prices. But it was not a period of price stability. The price changes within the cycle were large and the index of price dispersion was, until the relative improvement in agricultural prices in late 1924, still nearly as high as during the disturbed years of the war and immediate post-war period.<sup>23</sup> At the same time many different types of price control were developing within the general price structure that made price indexes less sure guides to appropriate credit and banking policy. This factor in the situation was of ever increasing importance during the following five years.<sup>24</sup>

The closing of the gap between agricultural and non-agricultural prices late in 1924 was temporary. It did not reflect an underlying economic adjustment. It obscured momentarily the continuing structural weaknesses that had been introduced into the American price system by the events of 1920-21. In 1924 the need for the outlets for American goods that foreign lending could provide was as urgent as in 1915 or 1916. The psychological atmosphere for the successful placing of foreign loans was rapidly being created, and the financial capacity of the country to make such loans was greater than it had been in 1915 and 1916, largely because of the

<sup>23</sup> The indexes of dispersion given by Mills, *op. cit.*, pp. 325-6 are:

1906-13	1914-21	1922	1923	1924	1925
7.7	13.0	11.7	11.0	8.3	11.5

<sup>24</sup> Cf. the discussion of 'rigidity' in Mills, *op. cit.*, pp. 324 ff., 532 ff.



manner in which gold imports had been assimilated into the American banking system from 1920 to 1924.

#### CHANGING RELATIONS OF BANKS TO INDUSTRY AND COMMERCE

When gold began to flow into the United States in the summer of 1920 American banks had nearly exhausted their power to lend. When the gold flow ended at the close of 1924 they were earnestly seeking employment for an abundance of lending power for which the demands of industry, agriculture, and commerce did not afford sufficient outlet. Though the general price level had fallen 38 per cent, the individual deposits of all banks in the United States had risen 16 per cent, and a new relation between loans, investments, and deposits had come into existence that was not thereafter eliminated. 'Loans and investments (adjusted)' had grown 11.5 per cent and 'loans and discounts (adjusted)' only 4.2 per cent, while 'investments' had increased 29.7 per cent (Ap. Table 1).

A summary statement of the influences playing upon the deposits (adjusted) of all banks in the United States for the entire period is presented in Table 42. This table discloses a discrepancy of \$633 million between the calculated effect of the various factors of change on deposits (adjusted) and the actual change in these deposits. About half of this discrepancy is probably due to the omission of any allowance for the effects on deposits of the capital flights of 1922 and 1924, and the rest is attributable to the fact that, because of the dates chosen, the capital and real estate and the currency items are partly estimates, and to the incomplete figure for commercial bank float. A rough adjustment to take account of these sources of error may, however, be made and a reasonably accurate statement of the sources from which the public derived its increased deposits of \$6,155 million presented. On this basis it may be said that between June 30, 1920 and October 10, 1924 the public acquired deposits (in millions of dollars) from the following main sources:

1) From the sale of foreign assets (as indicated by the increase in monetary gold stock less the estimated increase in the net indebtedness of American banks to foreign banks)	1,300
2) From the sale of silver and the deposit of currency (as indicated by the increase in Treasury Currency plus the decrease in money in circulation)	800
3) From advances from, sale of securities to, and other dealings with banks (as indicated by the increase in 'loans and investments (adjusted)' and changes in the Federal Reserve Bank portfolio, the commercial bank float, and the real estate holdings and capital funds of the commercial banks)	4,100

The commercial banks, by the purchase of gold with foreign exchange acquired from the public and from foreign banks, through the receipt of currency from circulation and from the Treasury, and through a reduction in cash in vault, came into possession of \$2,800 million in reserve funds. They were thus in a position to reduce their indebtedness to the central banks \$2,165 million, meet drafts upon their reserves due to various Federal Reserve operations and still increase their reserves \$358 million. The use of this great amount of reserve funds to repay advances to the Federal Reserve banks enabled them to reduce their bills payable, and the methods by which they acquired them built up their deposit liabilities to the public. About one-third of the \$6 billion increase in deposits that was piled on top of the amount brought into existence by war-time and post-war inflation was created in this way. Of the other \$4 billion only \$1,250 million was created by loans to the public (Ap. Table 1) and even this was in large degree the result of a growth in loans on securities, particularly loans to brokers. These began to expand rapidly in November 1923, and grew thereafter at an accelerated pace.

In addition, the growth of time deposits, which had been a feature of the whole history of American banking since the inauguration of the Federal Reserve system, continued through the entire four years. It was moderate during the depression of 1920-21 and in the last half of 1923, but during the business recovery of 1922-23 and the period of business

stagnation and great abundance of reserves in 1924 it was rapid.

The end product of this remarkable development was a weakening of centralized control over the American banking and credit system through a growing independence of the public from the banks, and of the banks from the Federal Reserve banks, the relegation of the discount rate to a position of relative unimportance as a means of exercising control, and a tendency for bank credit to find its way into the hands of the public through increasingly indirect channels. The time that elapsed between the creation of bank credit and its use in purchasing goods was becoming longer. In 1924 a striking growth in the use of credit to finance installment sales, a rapid conversion of privately owned business, especially small industrial concerns, into corporations with newly provided capital structures suitable for sale to the public, and a real estate boom combined to lay the foundations for a period of stock exchange speculation. The basis was laid also for the active lending abroad for which the placing of the Dawes Loans paved the way. To these results the persistent influence of gold imports and their assimilation by the American banking system largely contributed, and it is therefore proper to speak of them as evidence of a delayed gold inflation. On every count the American economy was, in 1924, in a position to respond vigorously to any constructive solution of the post-war stabilization problem.

### America drags her Golden Anchor

The general formulation of the exchange stabilization problem achieved at Brussels in 1920 set up a criterion of exchange depreciation that produced in England and in many other countries a break between the juridical and the economic concepts of gold as standard. By adopting the rate of exchange on New York as the practical measure of the depreciation of currencies in terms of gold bullion, it set up also an economic criterion of gold depreciation that was different in its essential

nature from that which had prevailed before the war. The economic concept of gold as standard was not only separated from the juridical, but was itself changed. Under the international gold standard system of the nineteenth century any single country not on the gold standard could measure the rise or fall of its prices and its exchanges in terms of those of a great body of gold standard countries. After the war a great body of former gold standard countries attempted to measure the rise or fall of their respective prices and exchanges in terms of those of a single country. The exchange stabilization problem before the war was to find a basis on which a single country could re-enter an established system. After the war it was to find a new starting point for all countries. As long as one great country remained on the gold standard the obstacles to conceiving of the problem in this way were insuperable.<sup>25</sup> Appreciation or depreciation in dollars became synonymous with appreciation or depreciation in gold, and as a corollary of this identification the world seemed to be faced with an increased variability in the value of gold 'itself.'

*The New-Found Variability in the Value of Gold 'Itself'*

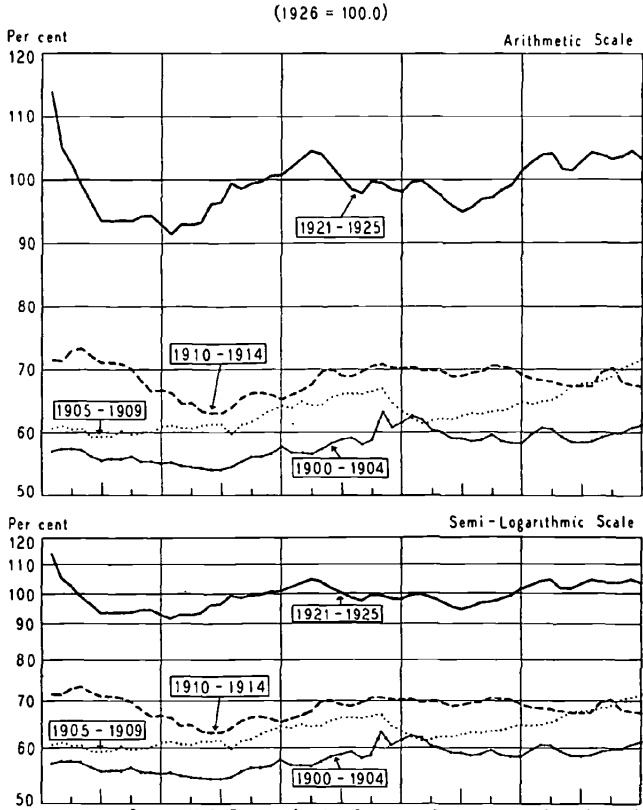
War-time and post-war inflation in the United States was on a scale that raised wholesale prices 154 per cent in six years. This was possible without abandoning the forms of the gold standard only because the American banking system was able to pursue a remarkable policy of gold concentration which included for a year and a half the imposition of an embargo on gold exports. After the great decline of 44 per cent between June 1920 and June 1921, fluctuations in American prices continued large as judged by pre-war experience (Chart 13), though they seemed relatively stable to a generation that had lived through the extraordinary variations of the war years. Even this relative stability in American prices concealed weaknesses in the price structure and a delayed

<sup>25</sup> Cf. Ch. 8, An Abstract Concept of Gold as an International Monetary Standard.

gold inflation. Under these conditions gold as a world monetary standard was far different from gold in the pre-war monetary system, when it was the symbol of the great and solid

## CHART 13

*Wholesale Prices in the United States  
1900-1914 and 1921-1925, by five-year periods*



inertia of a world system of prices. Gold as standard had become an illusion. The peculiarly variable character of the value of gold and its inherent instability were the result of a short run situation in which the concentration of gold shipments upon a single country greatly influenced changes in its

value. But because of all the traditional associations with respect to gold, this entirely unprecedented situation became confused with the long run problem of fluctuations in the general level of prices the world over under conditions in which most important currencies are related to one another in a stable exchange rate system through the international gold standard mechanism.

*Keeping the American Dollar 'at Par' with Gold*

From 1920 to 1924 and, indeed, during the entire period 1915-25, the United States kept all its moneys at par with gold in an equivocal sense. The phrase 'maintaining parity with gold' carried with it the implication, and because of the past history of the gold standard, carried that implication with overwhelming force, that the United States exercised sufficient strength and moderation in its banking policy to keep the dollar at par with something other than the dollar, with something having a value determined by forces operating in large part outside the United States and not under American control, viz., gold. But the converse was more nearly the case. Since the United States was the undisputed highest bidder for gold for monetary purposes, the obligation of the American Treasury under the Gold Standard Act of 1900 to maintain the convertibility of American currency into gold was, as far as any pressure from other countries was concerned, wholly academic for the greater part of the period. This does not mean of course that the control of the United States over its own prices was absolute. Gold imports did, indirectly, and subject to many modifications by central banking policy and commercial banking practice, in the long run influence the American price level. Fluctuations in the foreign exchanges were continually causing under- and over-valuation and therefore affecting the dispersion of prices within the United States. It is never true that a country can completely determine the level and the internal structure of its system of prices without reference to foreign countries as

long as it maintains international relations at all. But from 1914 to 1925 it was true that the influence of American policy alone on American prices and therefore on the world value of gold was so dominant as to deprive the expression 'maintaining the dollar at parity with gold' of the significance properly attributable to it when an international gold standard system is in force.

Though this large measure of control over the traditional *standard* was freely recognized and taken advantage of under the exigencies of war and post-war finance, this was not enough to alter by a hair's breadth the deep underlying conviction that the United States was anchored to a sound monetary base and that therefore her currency was safe. The United States was dragging her golden anchor. Indeed, she was carrying it on deck, but as long as she was still attached to it, she felt safe even though it was no longer fast to the ocean bed.

### The Moving Target

Though the British problem of returning to gold was fundamentally to reestablish a certain relationship between the price levels of the United States and Great Britain, and though it could be solved by a rise of prices in the United States and a stable price level in England, or by a stable price level in the United States and a fall in the price level in England, or by any other similar combination, it was usually felt, owing to the gold mentality of both countries, that the dollar was stable and the pound fluctuating. Yet in shaping the practical financial policies designed to bring sterling back to pre-war parity with gold, England was acutely aware that she was dealing with a set of mutually determining variables. The behavior of American and British prices and the course of the sterling-dollar exchange were closely bound together.

In his *Theory of International Prices* James W. Angell defines the very restricted limits of his faith in the purchasing power parity theory of the foreign exchanges, as illustrated

by the behavior of American and British prices and the sterling-dollar exchange before 1925, in these terms (p. 430): "The most that can be said is that the general paths of the price parities and exchange rates are similar."

But, from the point of view of those responsible for British financial policy, this is saying much. In order to direct the parallel course of purchasing power parities and the sterling-dollar exchange back to the pre-war position, they endeavored to influence all the variables. They were aware that in returning to gold they were shooting at a moving target. By shaping their imperial policy with respect to gold so as to direct gold shipments to America they endeavored to influence the position of that target. Their domestic credit control policy from 1920 to 1925 must be read in the light of the movement of American prices, actual or prospective. Finally, just before the return to gold the course of the sterling-dollar exchange was directly influenced by a definite expectation of a final adjustment in Anglo-American price relationships which proved to be over-optimistic. In contrast to the established ways of speech and thought about gold, the practical policy of Great Britain was a demonstration on a grand scale that in the post-war stabilization problem nothing was absolute, and everything relative.

#### *British Prices, 1920-1921*

The behavior of British and American prices during the great depression of 1920-21 was of fundamental importance for the future history of the international gold standard for two major reasons. First, the great decline in prices disclosed very deep and lasting, but very different, sources of economic instability in the British and American economies, which persisted as unsolved economic problems and added to the difficulties of maintaining the gold standard as an international institution long after 1925. Second, the unequal severity and duration of the price declines in the two countries influenced



directly the length and character of the process by which the British return to gold was actually accomplished.

Wholesale prices began to fall in England in April 1920 and continued to fall rapidly, with one brief interruption in the summer of 1921, until February 1922. In contrast to the situation in America, in which the fall of prices laid the foun-

TABLE 28

*United Kingdom, Commodity Prices and Shipping Freights  
1920-1924 (annual averages, 1913 = 100)*

	1920	1921	1922	1923	1924
Board of Trade Indexes <sup>1</sup>					
Total food	271	209	165	154	166
Iron and steel	357	209	136	147	142
Cotton	480	192	182	201	227
Other textiles	358	171	165	171	195
Total non-food	328	190	155	161	165
All commodities	307	197	158	158	166
<i>Economist</i> Index <sup>2</sup>					
Shipping freights	438	158	122	109	113

<sup>1</sup> *Statistical Abstract of U.K.*, 1932, Vol. 77, p. 218.

<sup>2</sup> Committee on Industry and Trade, *Survey of Overseas Markets*, 1926, p. 662.

ation for a period of manufacturing and financial prosperity, the price decline in England accentuated the difficulties of the industries upon which she had long based her predominance in world trade and her internal prosperity. The drop in the prices of cotton and other textiles was the most pronounced feature of the general price decline. Prices of iron and steel and the index of shipping freights also fell far more rapidly than prices in general. These major characteristics of the British readjustment in prices are shown in Table 28.

For nearly two years the pound rose in its command over goods, and for four months, as shown in Chart 20, it rose rapidly in purchasing power relatively to the dollar. The precipitate decline in American prices, which began to be severe only in June 1920, was checked in June 1921, and not resumed thereafter, while from July to October 1921, the Brit-

ish liquidation continued almost as rapidly as during the first part of the year. For three months beginning in October 1921, wholesale prices fell in both countries, but at a relatively moderate rate until a definite turning point was reached in America in January and in England in February 1922. As a consequence, the gap between British and American wholesale prices (1913 = 100), was narrowed, and the calculated purchasing power parity of the sterling-dollar exchange rose from 3.80 in April 1920 to 4.42 in February 1922. With full recognition of the statistical imperfections of such measures the broad fact that the pound had risen substantially in purchasing power both absolutely and relatively to the dollar is unquestioned.

#### *The Sterling-Dollar Exchange*

In April 1920 the average sterling-dollar rate was 3.93, and in February 1922, 4.36. The pound had risen in terms of gold, according to the criterion of sterling depreciation established when the sterling-dollar-franc foreign exchange nucleus broke up, approximately in the degree that it had risen in purchasing power relatively to the dollar, but only after violent and extreme fluctuations. The relation of these fluctuations to the formation of groups in the foreign exchanges was shown in Chapter 9. The first, a rapid recovery from the low of 3.20, reached in February 1920, to nearly 4.00 in March, was in part due to the announcement that the British share of the Anglo-French Loan would be paid off on its due date, October 1920, from resources already accumulated in America or to be drawn from special sources not entailing new demands for dollars in the exchange market. This increased confidence in the future of the pound and led to purchases of sterling to replenish London balances. In part, it was due to a corrective adjustment in American merchandise trade arising from the undervaluation of the pound. The remarkable decline in the merchandise export surplus of the United States, begun in 1920 and continued through 1921, was an underlying force

favorable to sterling. Yet its influence on the exchange was frequently obscured by radical shifts in demand due to temporary causes. For the four months March to June 1920 the market was becoming increasingly nervous over political developments on the continent, though it did not show a definite trend. Between June 22 and November 8, 1920, however, sterling fell in New York from 3.99½ to 3.34, even though the British government stayed out of the market and substantial American export credits were arranged. The main cause of this decline was a combination of two European crises—the threat of a war between Russia and Poland, and the failure of the Spa conference to solve continental financial and economic problems arising from the peace settlements—and the usual seasonal peak of commercial requirements for dollars. The extreme sensitiveness of the sterling-dollar rate to European political developments because of the middleman position of London was well illustrated by this decline.

When sterling fell rapidly in New York in the spring and again in the autumn of 1920 the declining rate made American securities, offered in foreign markets, very attractive to American purchasers and brought large supplies of dollars into the market for the repatriation of such securities. In the autumn of 1920 this source of demand for sterling was supplemented by speculation based on the beginning of negotiations for refunding the British debt to America and the revival of the American War Finance Corporation. Sterling was again driven up in the early spring of 1921 to nearly 4.00. But in May European developments once more dominated the market. A decision of the Reparation Commission to receive a portion of the German reparation payments in dollars resulted in large transfers to New York through London. This, together with purchases of dollars due to a flight of capital following a crisis over Silesia, so drained the market that when seasonal commercial demands again reached their peak the rate fell sharply. But again in August 1921 purchases of securities abroad by Americans were encouraged by the low

rate, and the flight of capital was checked by better political conditions—the ratification of the American Treaty of Peace with Germany and the Loucheur-Rathenau Agreement. Together with credits extended by the War Finance Corporation, these influences once more pushed the sterling-dollar rate upward, until in February 1922 it reached 4.41, approximately the figure indicated by purchasing power parity calculations.<sup>28</sup>

The behavior of the sterling-dollar exchange during 1920 and 1921 provides, therefore, a remarkable laboratory experiment in which many of the forces let loose by a break-up and disintegration of a world system of exchange rates with a single dominant center may be observed at work in exaggerated form and within a brief period. It excellently illustrates:

- 1) the contraction of trade imposed by the exchanges when credits that have long supported a fundamentally unbalanced movement of goods are withdrawn
- 2) the persistence of the forces that cause exchange rates and price parities to move in roughly parallel paths
- 3) the extraordinary importance of the transfer of balances and securities, both as causes of exchange fluctuations—as in the case of flights of capital—and as correctives of these fluctuations—as in the case of the three successive periods of special inducement to the repatriation of American securities
- 4) the accentuation of seasonal factors by the competition of special demands for foreign exchange with ordinary commercial requirements
- 5) the new significance for Great Britain of the historic position of sterling as intermediary between the dollar and other currencies in a world in which the dollar exercised a commanding pull over the world's exchanges.

### The English Credit Base and Credit Superstructure,

1920—1924

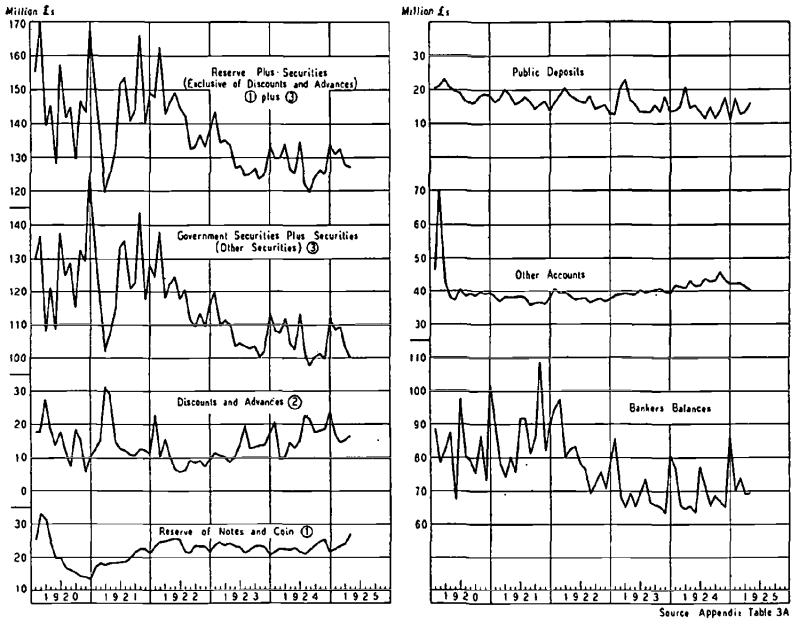
For a full year after the downward trend in British prices had begun the reserves of the Bank of England and of the joint

<sup>28</sup> Cf. Brown, *op. cit.*, pp. 66-7, 107-9, 120.

stock banks were under pressure, and the Bank maintained a 7 per cent rate. For most of that period the market rate for three month bank bills was approximately  $6\frac{3}{4}$  per cent, but it began to fall rapidly in February 1921. During the last year

## CHART 14

*Bank of England, Assets and Liabilities  
of the Banking Department, January 1920–April 1925*

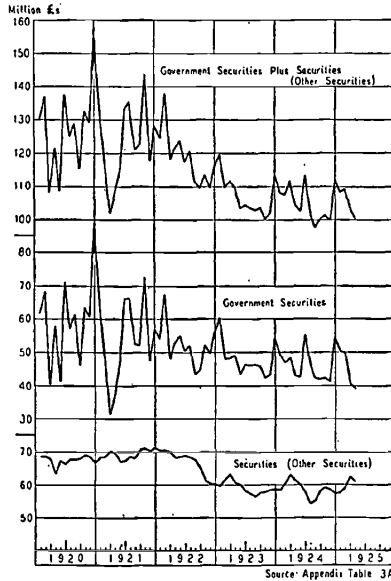


of the British price decline it fell steadily. When the turning point in prices was reached in February 1922 it was about  $3\frac{1}{4}$  per cent, and it continued to fall for some time until, in mid-summer 1922, it was approximately 2 per cent. During the first part of its decline the open market rate was followed closely by reductions in Bank rate which fell by successive stages from 7 per cent in April to  $5\frac{1}{2}$  per cent in July 1921. From July to November Bank rate was maintained at  $5\frac{1}{2}$  per cent, and the spread between it and the market rate widened to  $1\frac{1}{2}$  per cent. During these months the long continued

pressure on reserves was somewhat relieved, and further reductions in Bank rate followed. When prices began to turn upward Bank rate was  $4\frac{1}{2}$  per cent, and by July 1922 was brought down to 3 per cent. The relations between Bank

CHART 15

*Bank of England, Securities in the Banking Department January 1920–April 1925*



rate and market rate during these months are shown in Chart 48.

The slowness with which easy money conditions were reestablished in England was in harmony with the requirements of the foreign exchange situation. It was part of a policy of credit restriction in which the new relations in the London market, discussed in Chapter 9, were skillfully combined and made to harmonize with the employment of old or 'normal' techniques of market control. This may be observed in the behavior of the English credit base.

*The English Credit Base during Deflation*

The study of the English credit base during this period is greatly facilitated by the publication, by the Bank of England

in its *Statistical Summary* of February 1932, of monthly averages of its balance sheet items for 1920-24 in the form prescribed by the Currency and Bank Notes Act of 1928, as an extension of the figures furnished by it to the Macmillan Committee for 1925-28. The major balance sheet items from 1920 to April 1925 are given in Appendix Table 3, and are combined and plotted in a form adapted to the analysis of this and subsequent periods in Charts 14 and 15.

#### ADMINISTRATION OF THE DUAL SYSTEM OF NOTE ISSUE

As already pointed out, the provision of additions to hand-to-hand circulation through the issue of Bank of England Notes upon the principles of the Cunliffe Committee Report and of the Treasury Minute of December 1919 was the specific cause of drafts upon the reserve of the Bank of England during the last stages of the restocking boom. This strain was temporarily relieved in February 1920 by the deposit of gold by the joint stock banks (Chart 5), but during March, April, and May Bank of England Notes outstanding less notes in the Banking Department grew rapidly without any large additions to gold and coin and bullion at the Bank. As a consequence, the reserves of the Banking Department declined. In May they had fallen to the point at which they stood before the joint stock banks had made their February deposits of gold. The rapid expansion in notes continued in June and July, but in these months the Bank of England acquired further substantial amounts of gold which finally checked the decline in reserves of the Banking Department. In July the very rapid increase in notes outstanding stopped, but was followed by a moderate rise beginning in August. This was accompanied by further increases in gold coin and bullion which kept pace with the increased note issues until the peak was reached in December 1920. The sources of these additions to the Bank's gold stock were South Africa and Russia by way of Sweden.<sup>27</sup>

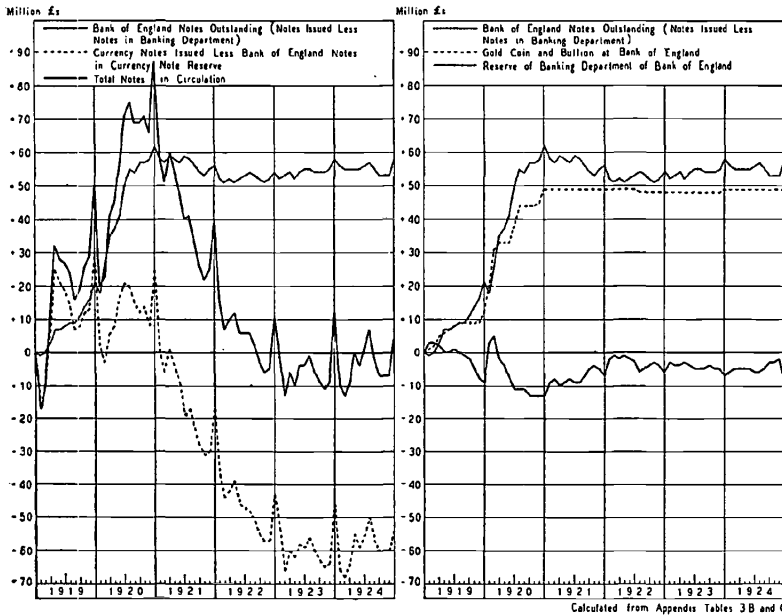
The year 1920 presented, as far as the reserve of the Bank

<sup>27</sup> Samuel Montagu & Co., *Annual Bullion Letter*, 1920, p. 10.

of England was concerned, a homogeneous picture. The growth in the currency circulation was provided by the issue of Bank of England Notes. The increase in these notes pulled down the reserve of the Banking Department. The application of the Cunliffe Committee principles and the return to

CHART 16

*Administration of the Dual System of Note Issue and its Influence upon the Reserve of the Banking Department of the Bank of England, 1919-1924, changes cumulated monthly*



normal techniques in this respect was a source of pressure upon the Bank and upon the whole British banking system which was from time to time relieved by the receipt of gold by the Bank from the joint stock banks and other sources.

In 1921 this picture was changed, as appears clearly from Chart 16. The Bank of England gold holdings were constant at £128 million and Bank of England Notes outstanding declined slightly. This produced a small increase in the reserve



of the Banking Department and laid the foundation, in part, for a period of easier money. Nevertheless, the Bank maintained its 7 per cent rate until after the collection of the revenue in the first quarter of 1921, by which time general liquidation had become the order of the day and the rising trend in its reserve was definitely established. England, however, was not blessed during the years of deflation by a currency that behaved in accordance with the principles of the Peel Act of 1844. The major seasonal fluctuations in total currency in circulation took place in the Currency Note constituent of the total note issue. They were accentuated in 1920, but resembled fairly closely the seasonal movements of less disturbed times, as can be seen by comparing them with the fluctuations of Currency Notes in 1923 and 1924. In 1920 there had been no definite trend in Currency Notes, for the growth in the total note issue was being taken care of by Bank of England Notes, but in 1921, when total circulation was rapidly contracting, the downward trend was expressed chiefly in the Currency Note constituent. During 1921 and the greater part of 1922 Currency Notes declined very rapidly, and at the same time took care of those seasonal fluctuations which were not obscured by the all-embracing cyclical decline (Chart 16).

During the war the expansion of Currency Note issue involved a *turnover* of Bank of England funds and the accumulation of a debt from the government to the public.<sup>28</sup> The reversal of this process involved similarly a *turnover* of Bank of England funds and a reduction in the government's debt to the public. Banks presenting Currency Notes for redemption received increases in their balances at the Bank of England, and the government had to find some means of acquiring Bank of England balances with which to retire the securities pledged against the Currency Notes and to redeem the latter. This involved either the use of current revenue when surpluses were available or borrowing in some other form.

<sup>28</sup> Cf. Ch. 5, *The Gold Standard as a Domestic Institution in Great Britain*.

It involved either a repayment or a redistribution of the public debt, or both in some proportion. The flow of Bank of England funds from the market to the government and back again to the market through redemption of notes presented a technical problem of public debt administration, and opened a possibility by which the government might directly influence bankers' deposits at the Bank of England. To administer this process smoothly and without conflict with established central banking policy required close cooperation between the government and the Bank of England. The steadiness of public deposits at the Bank during 1921 is evidence of the success of this cooperation (Chart 14).

The return of currency from circulation built up the balances of commercial banks with the central institutions in America and England. In both countries the process was neutral as far as the basis of commercial bank credit was concerned, for the increased central bank balances were immediately withdrawn. But whereas in America this was accomplished by a repayment of commercial bank debt to the central bank and therefore was accompanied by a weakening of the control of the central bank over the market, in England it was accomplished by withdrawing the increased balances at the central bank through payments to the government either in the form of surplus revenue or through purchases of new government securities. There was no weakening of central bank control over the market in England as a result of the retirement of hand-to-hand money in 1921 and 1922. On the contrary, the total administration of the dual system of note issue from 1919 to 1922, involving the provision of additional currency by Bank of England Notes and the withdrawal of currency in the form of Currency Notes, strengthened that control, for the retirement of currency did not relieve the banks of pressure imposed by the issue of currency. That pressure was exerted only because it was assumed that 113,001 grains of fine gold in the reserve of the Bank of England continued to be the equivalent of only one pound

sterling, whatever might be the depreciation of the pound 'in gold,' as measured by the fluctuations of the dollar-sterling exchange. This assumption was particularly important, from a private profit point of view in connection with the transfer of gold from the joint stock banks to the Bank of England at 77 s. 9 d. per standard ounce. There was in this transfer an implied promise that there would be no devaluation of the pound.

#### BANKERS BALANCES AT THE BANK OF ENGLAND

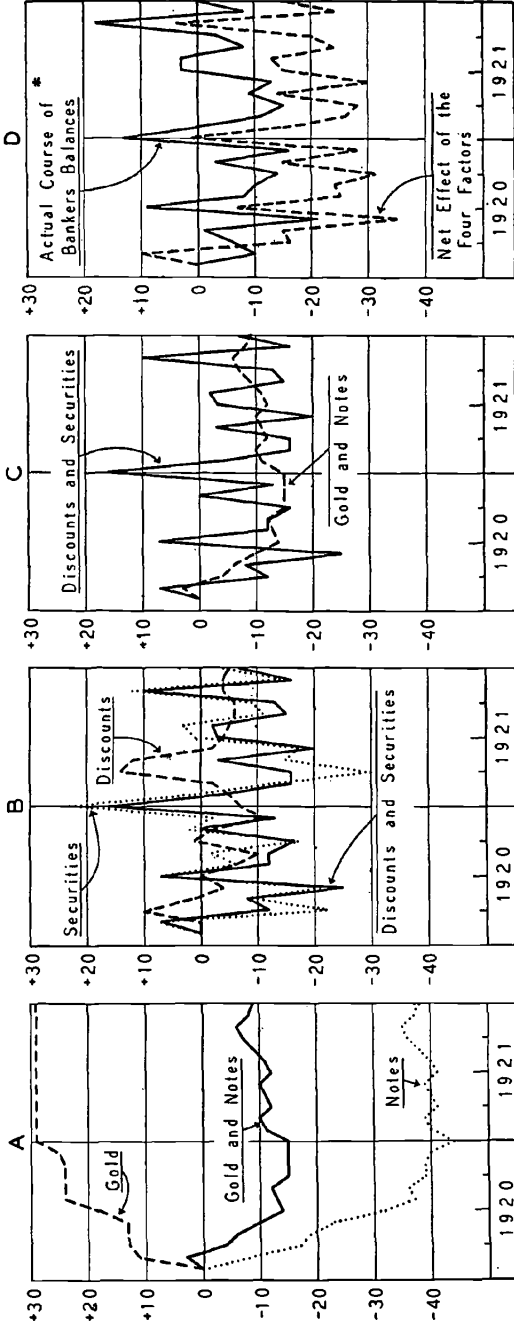
Fluctuations in Bank of England Notes outstanding and in gold at the Bank had the effect of placing bankers balances at the Bank of England under strain during the first part of 1920 and of relieving that pressure during the greater part of 1921 (Chart 17 A). During these years there were very great fluctuations in the Bank of England's portfolio of government securities connected with the large public debt operations of the period. The most notable was a reduction of £56 million in the first quarter of 1921, which forced an increase in 'discounts and advances' of £20 million. This increase in 'discounts and advances' was typical of an inverse fluctuation in these forms of Bank of England credit (Chart 17 B). The net fluctuation in 'government securities' and 'discounts and advances' caused very large changes from month to month in 'bankers balances,' but, except for the first part of 1920, no consistent increase or decrease. In spite therefore of these fluctuations the pattern of the behavior of bankers balances at the Bank of England was established by the changes in notes and gold (Chart 17 C). The influence of these four items combined would have resulted in a net reduction in bankers balances for the two years, but because of declines in 'public deposits' and 'other accounts' and an increase in 'other securities,' they were about the same at the end of 1921 as at the beginning of 1920 (Chart 17 D).

During the whole period of price deflation the Bank of England not only pursued a policy of high interest rates but

CHART 17

*Influences playing upon Bankers Balances at the Bank of England, 1920-1921, monthly*

(In Millions of Pounds Sterling—Cumulated from January 1920)



\* Note ( Bankers Balances increased by transfer from Other Deposits in the first 6 months of 1920 — 8 million pounds sterling.  
 ( Bankers Balances increased by transfer from Public Deposits particularly in 1921 — 6 million pounds sterling (approx).  
 Calculated from Appendix Table 3 A

gave no relief to the banks through open market operations. The credit base was stable and even slight variations in the Bank of England note issue were reflected in the London clearing banks' 'cash and at the Bank of England' (Chart 9).

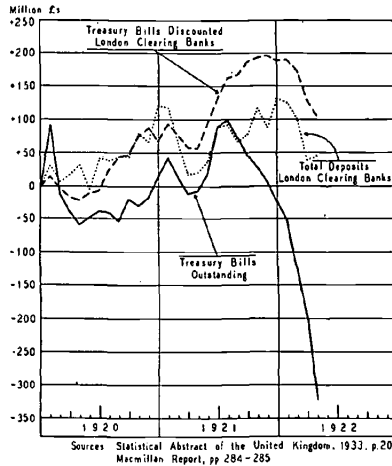
*The English Credit Superstructure during Deflation*

With the imposition of a 7 per cent Bank rate, and under pressure of declining reserves, both the 'advances' and 'investments' of the London clearing banks began to decline in April 1920. Their 'total deposits,' however, continued to expand, reaching their peak in December 1921. Thus after a year and three-quarters of liquidation, during which the index of wholesale prices (*Statist*) fell from 313 to 157 (1913 = 100) 'total deposits' of the London clearing banks reached the highest point in their history. The divergence in the trend in 'deposits' and 'loans and investments' was entirely due to fluctuations in 'treasury bills discounted.' During 1920 and 1921 there is a striking resemblance between the behavior of treasury bills outstanding, treasury bills discounted by the clearing banks, and total deposits of the clearing banks. In the latter part of 1921 the government embarked on a large scale reduction in its floating debt in a real effort to curtail the potential independence of the banks in relation to the money market policies of the Bank of England (cf. Ch. 9). 'Treasury bills discounted' continued, however, to give to 'total deposits' their characteristic movement (Chart 18). In the first quarter of the year, when the government revenue was flowing in most strongly, 'treasury bills discounted' and 'total deposits' of the clearing banks fell. During the last three quarters of the year, when government expenditures were exceeding receipts, 'treasury bills discounted' and 'total deposits' rose. The expenditure of government revenue and the deposit of government checks gave the banks increased deposits, but also the means of purchasing more treasury bills, and the collection of government revenue had the opposite effects. The fluctuations but not the increase in 'total deposits'

during 1920 and 1921 may be explained by this seasonal factor. The latter was probably due to a faster reduction of public debt held by the public than of total public debt, the difference being taken by the banks. The rising trend in 'discounts' during the deflation, together with the decline in

CHART 18

*London Clearing Banks, Treasury Bills Outstanding and Related Balance Sheet Items, December 1919–April 1922, changes cumulated monthly*



'advances' and 'investments,' once more caused the position of 'discounts' and of 'advances' in the ratio system of the clearing banks to deviate widely from pre-war 'normal' which had been approximated in 1920 (Ap. Table 3 D and Chart 19).

#### *The British Waiting Policy, 1922–1924*

In 1922 the various series showing the behavior of the English credit base and credit superstructure took on a very stable appearance in both trend and seasonal fluctuations. The policy of returning to the old parity with the dollar by returning to 'normal' techniques had developed into a policy of waiting for gold inflation in America while maintaining stability at home. The technical methods used to maintain this stability were foreshadowed by the experience and policy of the deflation period.

## THE DUAL SYSTEM OF NOTE ISSUE

The return of currency from circulation continued in England as in America for some months after the price decline had been checked. Thereafter, with moderate business recovery it showed a slowly rising trend which was for the most part reflected in the Bank of England note issue. Since the Bank's gold holdings remained unchanged, the reserve of the Banking Department declined gradually.<sup>29</sup> The seasonal fluctuations in the currency continued as in 1919 and 1920 to be taken care of by Currency Notes. After the influence of the deflation period had worn off these became very marked and were of the familiar pre-war pattern (Chart 16). The technical administration of the dual system of note issue was thus made to contribute to the general stability of the credit base.

## BANK OF ENGLAND CREDIT

During 1922 and 1923 the Bank of England allowed its portfolio of securities to run off. In combination with the slightly downward trend in the 'reserve of notes and coin' at the Banking Department this produced a steady downward pressure on the reserves of the commercial banks. During the first part of 1922, when recovery from the prolonged liquidation of the preceding two years had not yet been reflected in increased demands upon the banks for commercial accommodation, this was supplemented by a decline in 'discounts and advances' at the Bank of England. A sharp fall in 'bankers balances' at the Bank resulted. From midsummer 1922 onward Bank of England credit in the form of 'discounts and advances' began to grow, but was reflected for the most part in an increase in 'other accounts.' 'Bankers balances' during the next year fell very slowly, subject to seasonal fluctuations,

<sup>29</sup> In 1921 the last of the note issue privileges of the provincial banks lapsed, and in 1923 the Bank of England availed itself of the privilege of increasing the fiduciary issue £1,300,000. This increase, consequently, did not reduce the reserve of the Banking Department correspondingly. *Committee on Finance and Industry, Report (1931)*, Cmd. 3897, p. 26.

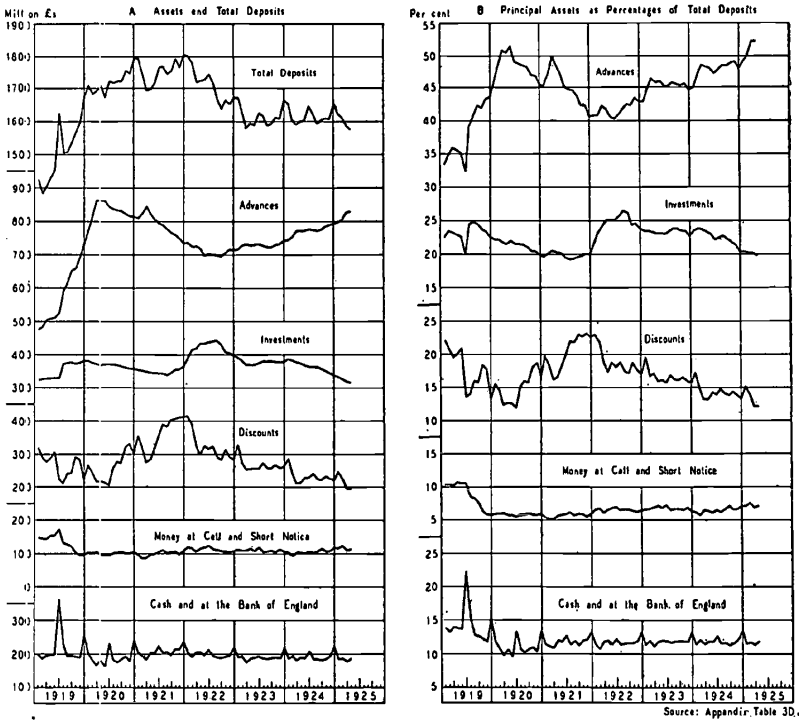
and in 1924 began to rise very slowly. The credit base was stable (Chart 14).

THE CREDIT SUPERSTRUCTURE

Upon this stable credit base the joint stock banks maintained a stable credit superstructure. Such changes as took place

CHART 19

*London Clearing Banks, Selected Balance Sheet Items  
January 1919–April 1925*



were in the direction of closer adherence to fixed and established practice. During 1922 there was a rapid decline in 'treasury bills discounted' coincident with the continued reduction of the government's floating debt, which was comparable to the temporary post-war distribution of government



bonds held by the American banking system. Its effect on bank deposits was partly, but not wholly, offset by an increase in 'investments.' This, together with a continued fall in 'advances' until the autumn of 1922, resulted in a decline in 'total deposits.' For the next two years, however, 'total deposits' were remarkably steady while a growth in 'advances' and a corresponding decline in 'investments' began. The behavior of these items and of the reserves of the joint stock banks during 1922-24 and the first quarter of 1925 is shown in Chart 19.

At this time seasonal fluctuations in 'deposits,' 'reserves,' and 'discounts' were assuming a very regular pattern, especially those which reflected the use of treasury bills as an 'equalization fund' in the money market by which the seasonal influences in the flow of public revenue were transferred from the banks' balances at the Bank of England to their discounts. The latter regularity is clearly indicated in the relations existing throughout the year between the amount of treasury bills outstanding and 'treasury bills discounted' by the clearing banks (Charts 6 and 7), and during the first three quarters of the year between these items and 'total deposits' of the clearing banks.

#### THE RATIO SYSTEM OF THE JOINT STOCK BANKS

These changes in the assets of the joint stock banks brought their ratio system once more to the position attained early in 1920, which seemed to be a new customary or 'normal' system, differing from the pre-war system solely in the lower proportion of reserves to deposits (Chart 19). By 1924 total 'advances and investments' were fluctuating about a level of 70 per cent of 'total deposits,' 'bills discounted' were approximately 13 per cent of 'total deposits,' while 'money at call and short notice' was between 6 and 7 per cent, and 'cash and at the Bank of England' was between 11 and 12 per cent. The declining ratio of 'investments' to 'total deposits' and the corresponding increase in the ratio of 'advances' to 'total

deposits' was a repetition of the situation characteristic of the five years of active business just preceding the war (Chart 46).

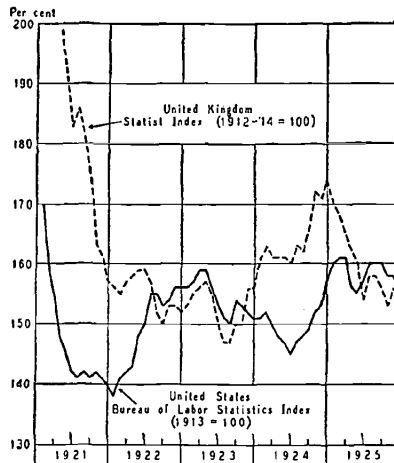
The whole period, from the autumn of 1922 to the end of 1924, was one of very marked stability in both the English credit base and credit superstructure. The policy pursued by the Bank of England kept a steady pressure upon the joint stock bank reserves. No inflationary tendencies were encouraged and no strong deflationary measures were taken. The prospects of American inflation were still being hopefully discussed in 1924, for example in the speeches of the bank chairmen and in *The Economist*. England was waiting.

### The Rising Pound vs. the Falling Dollar

In 1922 British trade was stagnant. Money was easy because of the difficulty of finding employment for the record amount of deposits still present in the banking system. British prices

CHART 20

*United Kingdom and United States Wholesale Prices, 1921-1925*



were more stable than for many years, though, notwithstanding a recovery in certain imported foods—coffee, tea, and sugar—and in textiles, their general trend was downward. A rapid rise in American prices in the first six months of 1922

brought the calculated price parity up to 4.80 in July, and a continued relative rise in American prices brought it to 4.99 in December 1922. In 1923 there were few evidences of any inflationary tendency in Great Britain. Prices of foodstuffs were once more tending downward, and the price of steel was steady. The calculated price parity remained at about the December 1922 level for most of the year. In 1922 and most of 1923 the expectations implied in the British waiting policy, as far as prices were concerned, seemed to be justifying themselves (Chart 20), but late in 1923 the situation changed. British prices began to rise, owing largely to speculation in cotton which raised the prices of textiles as a group. This coincided with the beginnings of a price decline in America, causing a new divergence in the trends of British and American prices.

*The Falling Dollar, 1922-1923*

The behavior of the sterling-dollar exchange from the summer of 1921 to February 1923 provided justification for and confirmation of the views of those who hoped and expected that the pound would return to its old parity with gold through an adjustment of the London-New York exchange to changes in the relative purchasing powers of the pound and the dollar. The persistent and continuing characteristic of this period was the tendency of the sterling-dollar exchange rate to rise. From June to September 1922 this tendency was interrupted by a prolonged controversy over German reparation, but when that was temporarily adjusted, the rise was resumed. Though the market was at times narrow and sensitive to sudden shifts in demand, the undertone was firm. How to find the means of remittance to New York to meet a very large excess of American merchandise exports and to settle unfunded debt was no longer the dominant foreign exchange problem. The British excess of merchandise imports and the American excess of merchandise exports were reduced to dimensions which, in relation to other items in the

total balances of payments, were manageable. The French excess of merchandise imports, which in 1920 was 23,010 million francs, was in 1921, 2,295, and in 1922, 2,393 million. Confidence was increasing. The Genoa Conference was successfully held early in 1922. American foreign lending in the first six months of that year was as great as during the entire year 1921. The impact of the German reparation crisis upon the sterling-dollar exchange market in 1922 may therefore be regarded as an interruption in a process of 'normal adjustment.' It developed slowly, but finally stopped American foreign lending and caused a flight of capital from Europe. It effectually checked the rise of sterling exchange in New York and caused an undervaluation of the pound in terms of the dollar which became in September almost as great as in February 1920, but in October sterling began to rise and this undervaluation was diminished. The temporary influences depressing sterling were eliminated by a reparation agreement, and confidence was strengthened by the payment of substantial sums by Great Britain to America on war debt account in October and November 1922, and by the negotiation of the war debt settlement with the United States in January 1923. Sterling reached a level of about 4.70 in the latter part of February, at about the same time that the rise in American prices was coming to an end. The British waiting policy had, up to this point, apparently been wise and successful. A close approach to the old parity had been achieved without further deflation of British prices, and for about six months the hard-pressed export industries of Great Britain had received a measure of relief through a substantial undervaluation of the pound.

Early in 1923 the foreign exchange situation again changed radically. In January France occupied the Ruhr. From then until September 1923 the shadow of the Ruhr conflict lay over the exchange markets of the world. American foreign credits were shut off. A flight of European capital continued steadily in the form of purchases of American securities. For-

eign loans previously floated in America began to return to Europe. British investors began to repurchase American securities sold during the war, encouraged partly by the previous improvement in sterling and partly by the higher yield basis obtainable in America.<sup>30</sup> Balances were also being transferred from London to New York because of the higher interest rates that prevailed there until June 1923. Added to these various causes tending to weaken sterling was a diversion of the flow of new gold to India beginning in September 1922. In spite of a continuing strong undertone, therefore, sterling began to decline slowly in New York in March 1923. In order to check the export of British capital and strengthen the pound in New York, the Bank of England raised its rate from 3 to 4 per cent on July 5. On September 27, 1923 the Ruhr struggle ended. Germany abandoned passive resistance. This great change in the political situation was not, however, as was the temporary solution of the reparation problem of August 1922, followed by a renewed rise of sterling toward the old parity under the impetus of the forces of 'normal adjustment.' A new complication had meanwhile arisen.<sup>31</sup>

*The Rising Dollar and the Falling Pound, 1924*

The changing trends in British and American prices that began late in 1923 had, by the summer of 1924, effectively put an end to the easy assumption that the final stages of the return to gold would be accomplished by inflation in America. British prices continued to rise in the first quarter of 1924 and remained steady during the summer, while American prices were under a pressure that culminated in a severe depression, which was part of a short business cycle peculiar to the United States and not a general characteristic of the long international business cycle of 1920-29. Consequently the calculated

<sup>30</sup> The difference in yield on identical securities in the two central markets was due to relatively higher money rates in New York and the lack of development of the American market for foreign securities.

<sup>31</sup> For a detailed account of the sterling-dollar exchange during this period cf. Brown, *op. cit.*, pp. 162-70.

purchasing power parity between London and New York fell from 4.99 in September 1923 to 4.38 in July 1924. At the same time a series of dramatic events was bringing the sterling-dollar rate to approximately the same level.

#### THE FLIGHT FROM THE POUND

The extreme tension and nervousness fostered by the long struggle over reparation had produced a psychological atmosphere in which any further serious blow to confidence in the future of continental currencies and of the pound itself was bound to have grave results. Such a blow was struck when certain political utterances in England gave rise, in October 1923, to fears that the government might embark on inflationary measures to alleviate unemployment. Prime Minister Baldwin denied this, but in doing so stated that the government would not pursue an active deflationary policy to bring the pound back to par. This explicit statement of the British waiting policy was not, however, strong enough to restore confidence and to check a transfer of British capital to America which had begun with the first fears of inflation. Pressure on the sterling-dollar rate was at the same time increased by a general flight of capital from Europe. The movement was strengthened in November, when the British government appealed to the electorate for a new mandate, and it seemed probable that a Labour Government would come into office. On November 30, 1923 one of the chief causes of the general flight of capital from Europe was removed by the decision of the Reparation Commission to appoint two Committees of Experts to propose a solution of the reparation problem. But on December 6 a Labour Government was elected in Great Britain and British capital continued to be exported in fear of socialist legislation. In January 1924 the flight from the French franc became really important. Not until February 18, 1924, when Prime Minister Macdonald announced that the financial policy of the Labour Government would be guided by the principles of the Cunliffe Re-

port, were the causes of the flight of capital from England removed. Sterling then began slowly to recover from a low point of 4.28.<sup>82</sup> By July the average monthly rate reached 4.37.

#### A NEW STARTING POINT FOR THE BRITISH RETURN TO GOLD

In March 1922 and July 1924 the average exchange rates of sterling on New York and the calculated purchasing power parities, based on the *Statist* and *Bureau of Labor Statistics* indexes of wholesale prices, were virtually identical. Between

	March 1922	July 1924
Calculated Purchasing Power Parities	4.40	4.39
Average Exchange Rates	4.38	4.37

these two dates, according to purchasing power parity calculations, some degree of undervaluation of sterling had existed. Even if these measures of undervaluation are rejected as wholly unsatisfactory on statistical or theoretical grounds, it is certainly true that when the new price trends were established the idea of returning to the old parity became associated for the first time in the British mind with new burdens on the export industries imposed by an unjustifiably high exchange rate. In the latter part of 1924 British prices again rose in spite of a reaction in the textile group. Most of the increases were in imported foodstuffs and raw materials—cereals, wheat in particular, wool, flax, hemp, jute, and petroleum. The influences that were closing the gap between American industrial and agricultural prices were thus reflected in a simultaneous increase in British prices. American prices, however, rose somewhat more slowly, and it was becoming increasingly evident that an early return to gold at the old par could not be accomplished by continuing a waiting policy. The fact had to be faced that at 4.86 the pound would be overvalued and that a return to gold would mean deflationary pressure in England either before or after stabilization at that rate. In this sense a new starting point for the return to gold was established in the summer of 1924.

<sup>82</sup> *Ibid.*, pp. 172-5.

## CHAPTER 11

### *The Competitive and Cooperative Aspects of the Return to Gold*

The dance of the price levels and the long delay in the return of the pound sterling to 'par' made it impossible for countries other than Great Britain and the United States to avoid the difficult choices described at the beginning of Chapter 10. In 1919 and 1920 currencies were grouping themselves around their natural leaders and seeking to adjust themselves to a newly established dispersion of price levels (cf. Ch. 9). From 1920 to 1925 the terms of this adjustment were often altered by economic and political crises arising from two main causes—the budgetary difficulties of governments and the attempt to collect impossible sums in reparation payments from Germany. These produced speculative movements in the exchanges which often preceded and partly caused price movements. More than any other single influence, however, the relations between the dollar and the pound dominated the world's exchange markets. The exchanges of the British Dominions and of many other countries were more stable in sterling than in dollars. Other exchanges *fluctuated* in terms of dollars in harmony with sterling, yet tended to diverge from sterling in their general level in New York, while still others were by one means or another kept relatively stable in dollars. The influence of general price movements on exchange rates was obscured and distorted by the pull of the two major currencies, and there were many imperfect adjustments between exchange rates and prices.

Certain examples of the initial complexity of these maladjustments may be drawn from the situation prevailing in



February and November 1920, when the pound was for special reasons particularly weak in New York. According to the League of Nations *Memorandum on Currency, 1913-1922* (pp. 185-90), sterling was undervalued in New York 12.2 per cent in February and 2.1 per cent in November. The Swedish krona, which followed the pound sterling quite faithfully between these dates, was overvalued in New York in February 7.5 per cent and in November 18.4 per cent. A change in relative prices in England and America, which had corrected an apparent undervaluation of sterling, had, because of the common movement of the pound and the krona, served to accentuate an already marked overvaluation of the Swedish exchange. The Japanese yen, on the other hand, which had not shared the initial decline in sterling, was overvalued in New York 24 per cent in February, but by November this overvaluation had declined to 14.2 per cent. On both dates the lira and the French franc illustrated the common post-war phenomenon of a much lower external than internal valuation of currencies. In February the franc was undervalued 25.7 per cent and the lira 52.5 per cent in New York; in November these undervaluations were 30.5 per cent and 37.9 per cent. Even within the British Empire similar situations were arising; for example, the overvaluation of the South African pound in terms of the pound sterling as a result of the pegging of the London-Johannesburg exchange in 1919.<sup>1</sup> These examples are sufficient to indicate that serious economic difficulties had to be faced by countries which, in their foreign exchange policies, were obliged to take part in an international game of 'follow the leader.'

### Following the Leader

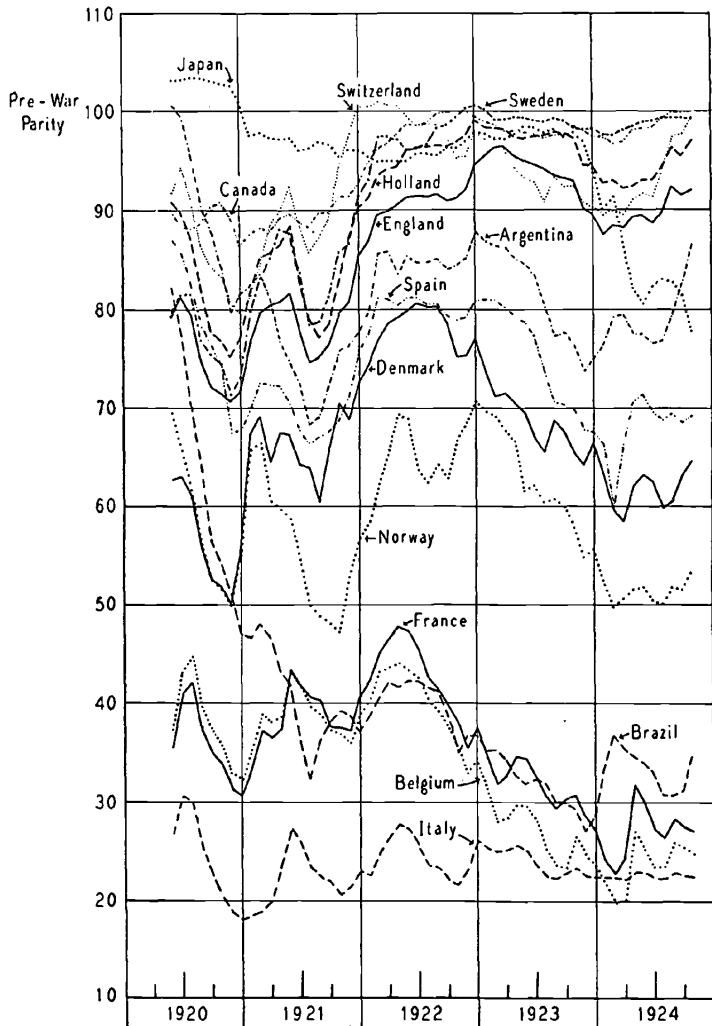
If fluctuations in the exchanges from 1920 to 1924 are expressed as percentage deviations from the pre-war parities

<sup>1</sup> This was not understood in South Africa because in the minds of the people the currencies of the two countries were identical, but it had important consequences. It benefited the South African gold mining industry at the expense of the rest of the population and resulted in a gold drain that caused South Africa to leave the gold standard.

CHART 21

*Exchange Rates on New York, May 1920–October 1924*  
*Monthly Averages of Daily Quotations as Percentages of Pre-War Pairs*

Percentage Deviations  
 from Pre-War Pairs



Source: Commission of Gold and Silver Inquiry, U. S. Senate,  
 Foreign Currency and Exchange Investigation - Serial 8

with the dollar (Chart 21) a great and increasing dispersion of rates is disclosed. This is a reflection of the solutions of the stabilization problem proper—that is, the choice of new parities—that were being worked out in accordance with the principles laid down at the Brussels Conference. Such a method of presentation, however, does not indicate very clearly the persistent tendency of the exchanges to move in groups. By shifting the basis of comparison a clearer view of this aspect of the problem can be obtained.

*The Sterling Nucleus, 1920–1922*

In Chart 22 A the exchange rates of Great Britain, the Netherlands, Belgium, Denmark, Italy, France, Sweden, and Switzerland on New York are plotted as percentage deviations from the rate that was established when these exchanges began to move in general harmony with sterling. The similarity of movement of the Norwegian, Argentine, and Spanish exchanges is not so marked, but the influence of sterling is undoubted. The exchanges of these countries on New York, together with the sterling-dollar rate, are shown on Charts 22 B and 22 C, from which it is clear that the expression 'a European-New York exchange rate,' used by Sir Austen Chamberlain and others, was much more than a catch-word.

These rates, of course, do not indicate fully the importance of the group of currencies moving with the pound sterling. The Dutch East Indies exchange moved with the guilder which was a member of the sterling group. The exchanges of South Africa, Australia, New Zealand, and Egypt also moved with sterling, and after 1921 independent fluctuations in the Indian rupee resulting from changes in the price of silver ceased and the rupee resumed its general stability in terms of sterling.

According to the League of Nations *Memorandum on Currency* the price levels of most countries tended to be increasingly stable after 1920, and prices in Great Britain and the British Dominions were more stable than American prices.

TABLE 29

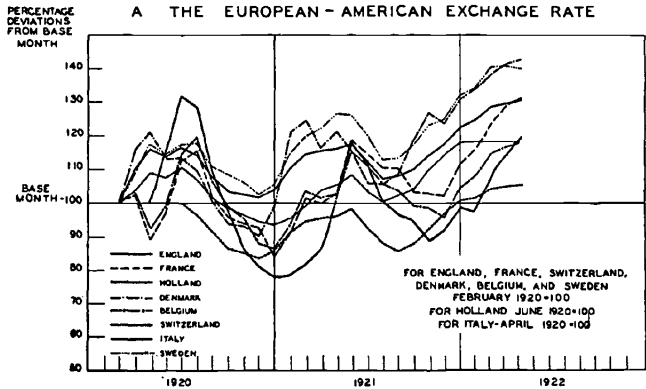
*Exchange Rates on New York, 1920-1922  
Percentage Deviations from a Base Month in which Each Rate began to move with Sterling*

	SWITZER-										ARGEN-	
	ENGLAND	FRANCE	LAND	DENMARK	BELGIUM	SWEDEN	HOLLAND	ITALY	NORWAY	SPAIN	TINA	
1920												
Feb.	100.0	100.0	100.0	100.0	100.0	100.0			100.0			
March	110.2	102.7	103.6	115.6	103.4	109.5			105.1			
April	116.3	89.1	108.9	120.9	92.4	117.6		100.0	114.6			
May	113.8	97.4	107.6	112.9	99.2	114.1		115.4	107.7			
June	116.8	112.5	110.6	113.2	114.7	117.3		132.1	101.4	100.0	100.0	
July	114.3	115.5	107.0	100.4	119.4	117.5	100.0	129.0	95.5	96.5	96.0	
Aug.	107.1	102.0	101.1	100.4	106.0	110.7	91.3	109.2	86.6	90.5	90.5	
Sept.	103.8	95.7	98.7	94.0	98.9	108.7	86.6	97.0	80.9	89.4	88.0	
Oct.	102.8	94.0	96.5	93.1	95.4	106.0	85.6	86.9	79.7	86.7	84.6	
Nov.	101.7	92.8	94.3	90.0	88.0	102.6	83.6	80.9	77.3	78.9	79.9	
Dec.	103.3	84.1	93.4	99.7	86.4	105.3	85.6	78.0	85.2	79.0	81.8	
1921												
Jan.	110.7	91.3	95.2	121.2	93.6	114.8	91.1	78.4	101.9	81.5	82.6	
Feb.	114.6	101.8	99.3	124.4	103.6	119.6	94.9	81.6	102.8	84.9	83.6	
March	115.7	100.0	103.7	116.2	101.6	122.7	95.4	86.1	93.6	84.5	81.4	
April	116.2	102.8	105.4	121.4	102.8	126.7	96.3	102.8	92.3	84.2	77.0	
May	117.6	118.9	108.4	121.3	115.6	126.3	98.5	118.1	91.2	82.3	74.6	
June	111.8	114.6	103.3	115.5	111.0	120.5	92.3	111.1	84.5	79.0	72.6	
July	107.4	110.9	100.4	105.9	105.5	113.1	88.1	101.1	77.3	78.6	68.5	
Aug.	108.1	110.2	102.1	108.7	104.0	113.5	85.9	96.5	75.5	78.4	69.1	
Sept.	110.1	103.5	104.4	118.6	99.1	117.1	87.8	94.6	74.3	78.8	72.5	
Oct.	114.5	103.0	110.7	127.0	98.5	123.5	92.7	88.6	73.1	80.0	76.0	
Nov.	117.4	102.3	114.1	123.9	95.9	124.9	97.0	92.0	81.6	83.0	76.5	
Dec.	122.9	111.4	117.7	131.0	104.1	131.8	100.8	99.0	88.0	88.6	77.6	
1922												
Jan.	125.0	115.9	117.8	134.0	108.0	134.1	101.8	97.5	90.5	90.5	80.2	
Feb.	129.0	124.0	118.5	138.5	115.0	140.6	104.1	108.5	96.3	94.9	85.9	
March	129.4	127.8	118.1	141.7	116.5	140.6	105.0	114.0	101.8	94.7	86.1	
April	130.5	131.1	118.0	142.3	117.7	140.0	105.2	119.6	101.6	93.9	83.9	
May	131.5	129.5	116.6	143.6	115.5	138.5			106.8			
June	134.3	124.4	115.5	145.4	113.6	138.7			98.7			

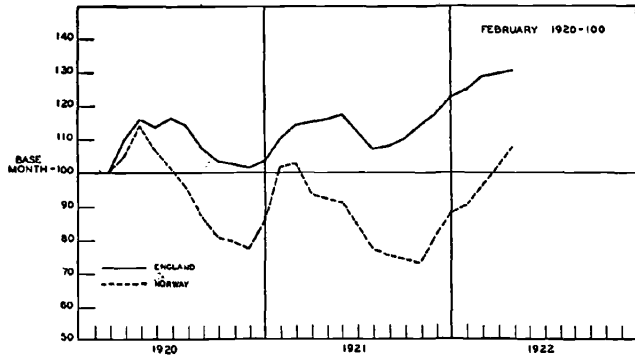
CHART 22

*Exchange Rates on New York, 1920-1922*

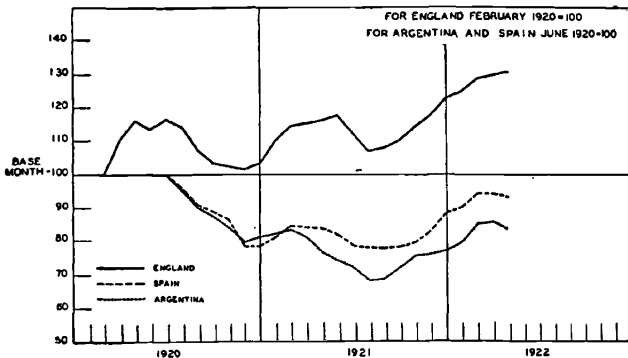
*Percentage Deviations from a Base Month in which Each Rate began to move with Sterling*



B NORWEGIAN AND ENGLISH EXCHANGE RATES



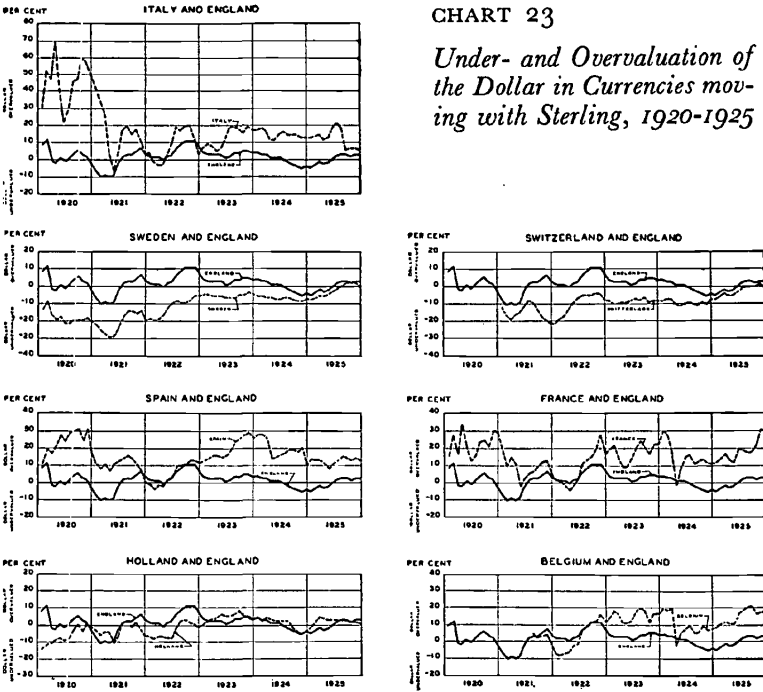
C SPANISH, ARGENTINE AND ENGLISH EXCHANGE RATES



Hence the common movement of many exchanges with sterling took on a peculiar significance. When, under various pressures, the sterling-dollar rate alternately over- and undervalued the dollar against the pound, corresponding changes took place in the relationship between the exchange rates of other countries on New York and their theoretical price parity relationships as calculated by the League of Nations (Chart 23). Though the margin of error is admittedly great,

CHART 23

*Under- and Overvaluation of the Dollar in Currencies moving with Sterling, 1920-1925*



LEAGUE OF NATIONS, MEMORANDUM ON CURRENCY, 1923, PP. 185-186  
 LEAGUE OF NATIONS, MEMORANDUM ON CURRENCY AND CENTRAL BANKS, 1925, PP. 113-124  
 THE INDEX OF AMERICAN PRICES EMPLOYED IN THESE CALCULATIONS IS THE INDEX OF WHOLESALE PRICES OF THE BUREAU OF LABOR STATISTICS

and the special indexes of the Federal Reserve Board are probably better measures of under- and overvaluation of currencies than the general indexes used by the League, the point intended to be shown by Chart 23 remains unaffected. For it is simply that at a time when the objective of world

currency policy was to stabilize in gold,<sup>1</sup> that is to say, in dollars, actual stability in sterling was to a certain degree an accomplished fact, and the variations of the pound sterling in terms of the dollar actually imposed upon many important countries a series of alterations in the terms of their respective problems of stabilizing in terms of gold.

*Breakup of the Sterling Nucleus, 1922-1923*

The rise of sterling in New York, which followed the negotiation of the Rathenau-Loucheur Agreement in August 1921,

TABLE 30

*Exchange Rates on New York, May and December 1922  
Averages of Daily Quotations as Percentages of Pre-War Pairs*

	MAY	DECEMBER
Sweden	96.17	100.55
Canada	98.79	99.45
Holland	96.14	99.10
Japan	95.00	97.99
Switzerland	99.51	97.98
England	91.36	94.73
Argentina	85.42	88.69
Spain	81.24	81.04
Denmark	79.85	77.13
Norway	68.92	70.67
India	59.08	62.99
Brazil	42.34	36.82
France	47.25	37.46
Belgium	43.32	34.43
Italy	27.25	26.06
Germany	1.44	0.06

SOURCE: *Commission of Gold and Silver Inquiry* (U.S. Senate, Serial 8, 1924), pp. 88, 100

was shared by many currencies that had previously been moving with the pound. Some rose nearly to their old parities with the dollar (Chart 21). In addition, exchange stabilization operations in Lithuania, Latvia, Austria, Czechoslovakia, and Finland were either carried out in 1922 or in immediate prospect. A broad area of stable exchange rates was being rapidly established (Table 30).

The reparation crisis of 1922 and the invasion of the Ruhr

in 1923, however, broke up the sterling nucleus and destroyed the common movement of the exchanges. When the crisis became acute<sup>2</sup> a capital flight from Germany began. The mark, which in May 1922 still retained 1.44 per cent of its pre-war value in dollars, was quoted in December at .000136 cents, only .06 per cent of its pre-war value. The crisis also precipitated a flight of capital from France,<sup>3</sup> and the franc was persistently weak in New York. With the actual Franco-Belgian invasion of the Ruhr in January 1923, a threefold grouping of exchange rates around the pound, the dollar, and the franc appeared, just as had happened after March 1919, and was destined to happen again after April 1933. The effect of the Ruhr invasion was to drive sterling down in New York, but certain currencies that had followed it in its upward fluctuations toward pre-war dollar parity did not follow it in this decline. On the other hand, the pressure upon the franc and certain other rates of the flight of capital from Germany and the continent generally, which carried the mark to its ultimate annihilation, caused these currencies to fall in New York much more rapidly than sterling.

The results of this breakup of the sterling nucleus are shown in Chart 24, in which the percentage deviations of various currencies from the rate at which they stood in April 1922 in New York are plotted. In the dollar group were Sweden and Italy whose exchanges had previously fluctuated with sterling, as well as Japan and Canada. Aside from the Dominion currencies, Switzerland, Spain, Argentina, and the Netherlands made up a sterling group. Of these the Netherlands alone followed sterling with fidelity. On the other hand, the influence of sterling was felt within the dollar group. Even the moderate fluctuations of the Canadian exchange in New York reflect the movements of the sterling-dollar exchange. From the beginning to the end of 1923 the franc group consisted of only France and Belgium, but both

<sup>2</sup> Cf. Ch. 12, pp. 358-65.

<sup>3</sup> Cf. Dulles, *op. cit.*, pp. 154-5.



TABLE 31

*Exchange Rates on New York, April 1922—April 1925  
Monthly Averages as Percentage Deviations from April 1922*

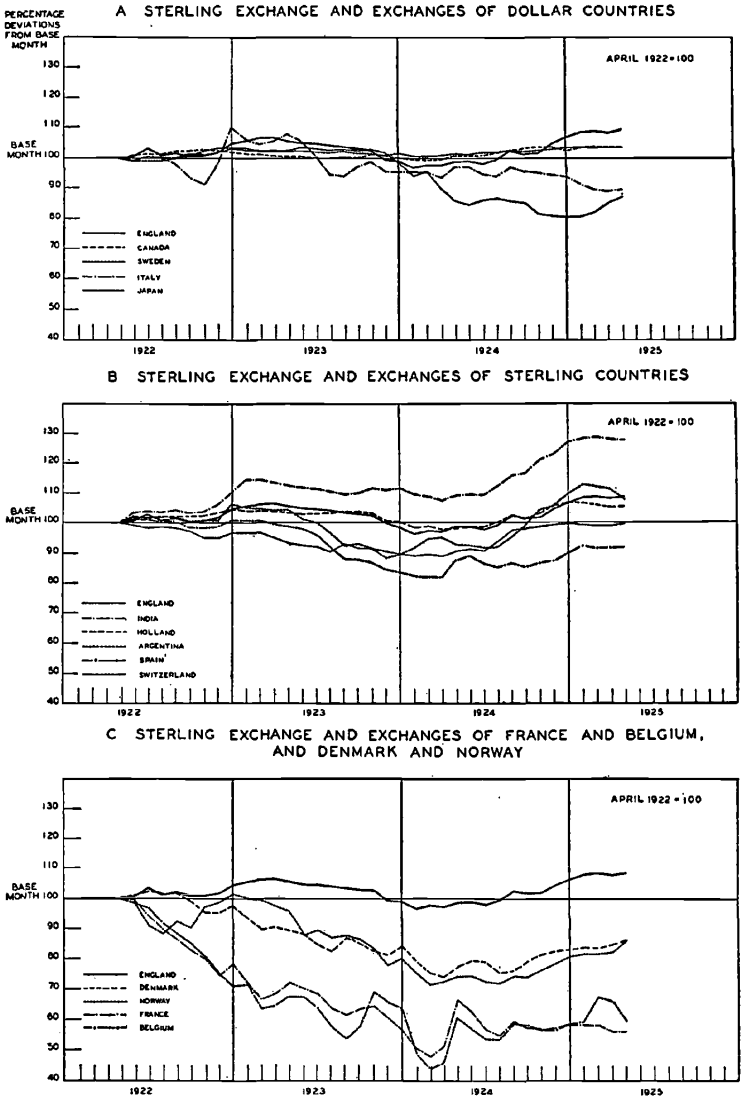
	ENG- LAND	CANADA	SWEDEN	ITALY <sup>1</sup>	JAPAN	INDIA	HOL- LAND	ARGEN- TINA	SPAIN	SWITZER- LAND	DEN- MARK	NOR- WAY	FRANCE	BEL- GIUM
<i>1922</i>														
April	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
May	100.8	101.2	99.0	103.2	99.3	103.2	102.0	102.4	101.1	98.9	101.0	99.5	99.9	98.3
June	103.0	101.3	99.1	104.0	100.2	104.0	102.1	101.8	101.1	97.9	102.4	91.8	94.9	96.6
July	100.8	101.4	99.5	103.8	100.0	103.8	102.3	101.8	100.6	98.1	101.1	88.4	89.2	91.6
Aug.	101.3	102.2	101.0	104.2	100.1	104.2	102.4	102.0	100.6	97.8	101.8	92.3	86.3	88.0
Sept.	100.4	102.4	101.8	103.2	101.2	103.2	102.4	100.7	98.6	96.8	99.4	90.3	82.9	85.0
Oct.	100.7	102.6	102.3	103.8	101.0	103.8	102.8	101.1	98.2	94.6	95.2	97.0	79.8	80.5
Nov.	101.6	102.5	103.0	106.0	101.8	106.0	103.6	100.8	98.6	94.8	95.2	98.6	74.3	74.8
Dec.	104.5	101.9	103.4	110.0	102.8	110.0	104.9	106.2	100.8	97.4	97.4	101.3	78.3	71.0
<i>1923</i>														
Jan.	105.6	101.5	103.1	106.0	102.5	114.1	104.2	105.2	100.8	96.6	93.2	100.0	72.4	71.5
Feb.	106.4	101.1	102.1	104.9	102.0	114.5	104.1	104.8	100.8	96.8	90.0	99.6	66.6	63.5
March	106.5	100.5	102.1	105.8	102.0	113.5	104.0	104.4	99.6	95.6	90.5	97.5	68.5	64.5
April	105.6	100.4	102.2	107.8	102.4	112.5	103.2	104.2	98.6	93.8	89.2	95.7	72.2	67.6
May	104.9	100.4	102.5	105.2	103.2	111.6	103.1	101.2	98.0	92.8	88.0	87.9	71.7	67.2
June	104.7	100.0	102.0	100.0	103.0	111.4	103.3	100.0	96.0	92.3	84.6	89.4	68.2	63.5
July	104.0	99.9	101.7	94.7	102.6	110.6	103.3	96.5	92.0	90.5	82.6	87.0	63.7	57.3
Aug.	103.5	100.0	102.2	94.0	102.8	109.8	103.7	92.5	88.0	92.9	87.0	87.5	61.2	53.5
Sept.	103.0	100.0	101.8	97.1	102.3	110.0	103.6	93.0	87.5	91.9	85.2	86.4	63.4	57.6
Oct.	102.6	101.0	101.2	98.6	102.7	111.6	103.1	91.5	86.6	91.9	82.6	83.4	64.4	69.4
Nov.	99.4	100.6	100.9	95.5	101.9	111.0	100.2	88.2	84.1	90.5	81.1	77.9	60.5	55.6
Dec.	98.9	100.0	101.1	95.1	98.5	111.4	100.2	89.6	83.4	90.0	84.5	80.2	56.9	53.8

	ENG- LAND	CANADA	SWEDEN	ITALY <sup>1</sup>	JAPAN	INDIA	HOL- LAND	ARGEN- TINA	SPAIN	SWITZER- LAND	DEN- MARK	NOR- WAY	FRANCE	BEL- GIUM
<i>1924</i>														
Jan.	96.6	99.7	100.4	95.1	94.2	109.5	98.5	91.5	82.1	89.4	79.7	75.6	50.5	49.1
Feb.	97.7	99.4	100.4	95.2	95.5	108.9	98.8	95.0	82.0	89.5	75.4	71.5	47.8	44.0
March	97.3	99.5	100.9	93.6	90.0	107.4	97.6	95.1	82.0	89.1	74.0	72.6	51.1	45.5
April	98.7	100.7	101.0	97.1	85.7	109.2	98.3	92.6	87.7	90.6	77.6	74.1	66.6	61.5
May	98.9	100.8	101.1	97.1	84.4	109.8	98.8	92.3	89.0	91.4	79.6	74.5	62.6	57.2
June	98.0	100.9	101.8	94.6	86.6	109.5	98.8	91.6	86.6	91.0	79.0	72.6	56.8	53.6
July	99.2	101.8	101.9	94.0	86.7	112.4	100.0	91.9	85.5	93.6	75.6	72.1	55.0	53.6
Aug.	102.1	102.3	102.2	97.1	86.0	115.9	102.2	95.2	86.8	97.0	76.5	74.5	59.2	58.9
Sept.	101.2	103.4	102.1	95.6	85.2	116.8	101.2	99.2	85.4	97.2	79.7	74.2	57.4	56.4
Oct.	101.8	103.4	102.2	95.2	81.4	121.2	103.0	103.7	86.8	98.9	81.6	76.5	56.6	56.4
Nov.	104.5	103.4	102.8	94.5	80.8	123.0	105.8	105.5	87.3	99.1	82.7	78.8	57.2	56.7
Dec.	106.5	102.1	103.3	94.0	80.5	126.8	106.8	109.6	89.8	99.9	83.1	81.1	58.5	58.3
<i>1925</i>														
Jan.	108.4	102.2	103.2	91.0	80.5	128.1	106.8	112.8	92.4	99.5	84.0	82.0	58.4	59.4
Feb.	108.8	102.3	103.2	89.9	82.0	128.3	106.0	112.1	91.0	99.1	84.0	82.0	58.5	67.6
March	108.4	102.3	103.3	89.1	85.4	128.0	105.2	111.1	91.6	99.1	85.2	82.6	56.1	66.5
April	108.8	102.3	103.2	89.7	87.5	127.9	105.5	107.9	92.0	97.5	86.9	86.5	56.2	59.4

<sup>1</sup> July 1922 = 100.

CHART 24

*Exchange Rates on New York, April 1922–April 1925*  
*Percentage Deviations from April 1922*



Norway and Denmark clearly show the influence of the falling franc and of the collapse of the mark.

*Increasing Exchange Stability, 1924*

With the end of passive resistance in the Ruhr and the beginning of efforts to reconstruct the German currency system in 1923 a period of widespread foreign exchange stability began. In 1924 the approaching decision of Great Britain not to delay further her return to the gold standard was generally anticipated. Sterling began once more to rise in New York and the currencies that had been dragged down by the decline of the franc and the mark began to move with it again. Some rose toward the old *par*s more rapidly than sterling, but shared its fluctuations in New York (Chart 24). At the same time the dollar group was growing wider. The Central European exchanges that had been stabilized in dollars in 1922 and 1923 remained stable. Certain South and Central American countries such as Venezuela and Guatemala also were kept stable in dollars. The relative stability of the exchanges of Bolivia, Uruguay, and Ecuador on New York increased very materially after 1922. They did not follow the fluctuations of sterling. Of the major South American currencies the Chilean peso alone seems to have fluctuated without reference to any group of rates. The decline of the exchanges of Norway and Denmark, and France and Belgium in New York was stopped and they became relatively stable in the latter part of 1924. Finally, during 1924 prices on the continent rose relatively to dollar prices; as a result, the currencies that had been undervalued in New York drew nearer to the range of purchasing power parities. Lower rates on New York became more permanent and in many countries the argument for devaluation became stronger and the argument for deflation weaker. In the spring of 1924 Poland, aided by foreign credits, achieved a temporary stabilization in terms of dollars, and in March 1924 Sweden returned to the gold standard. At the end of 1924 the currencies of 25 countries were practically at *par* with the dollar.<sup>4</sup>

<sup>4</sup> League of Nations, *Memorandum on Currency and Central Banks, 1913-1924* (Geneva, 1925), I, 47.

## Who is Leader? The Competitive Aspect of the Return to Gold

### *The New Position of Sterling as a World Currency*

The formation of sterling and dollar groups in the exchanges after the war illustrates the new position of sterling as a world currency. It was a measure of the still immense influence of the trade and financial relationships established before the war and centered in London that the fluctuations of the pound in New York were so faithfully reflected over so great a part of the world's foreign exchanges in spite of the world-wide prestige given the dollar as the representative of gold. The formation of a large group of currencies around the dollar was a measure of the degree to which sterling was forced to share its former dominant position as a world currency. The question 'Who is Leader?' became an ever-present one in the world's exchange markets. An all pervading competitive element was introduced into the process of returning to gold partly because of the changed competitive position of Great Britain in world trade, and partly because of the new competitive position of London in world finance.

#### THE COMPETITIVE POSITION OF GREAT BRITAIN IN WORLD TRADE

In one of the remarkable official reports in which the British are accustomed to submit their position to candid self-examination a comprehensive picture is given of the competitive position of Great Britain in world trade after the war. In its *Survey of Overseas Markets* the Committee on Industry and Trade, commonly known as the Balfour Committee, came to the general conclusion that though the proportion of the value of the world's trade enjoyed by Great Britain increased slightly from 1913 to 1924, the proportion of the volume falling to her lot decreased, because the cost of manufactured staples exported by Great Britain had risen faster than prices in general. A change in the nature of British exports to somewhat more highly specialized goods accounted for some, but

by no means all, of the relative increase in the cost of these exports. In the main, Great Britain still relied upon her traditional staple export products—coal, textiles, iron and steel—and upon her shipping. In developing her export trade along these traditional lines after 1919 she was faced by a triple obstacle: a reduction in the purchasing power of the countries to which she exported directly and which were impoverished by the war; the growth of local industries stimulated by the war in former markets; and the competition of newly developed and war-expanded industries of other countries that competed in the export markets.

After the collapse of the post-war boom the loss of purchasing power in former markets was an important general factor that spread from Central Europe and the Near and Far East over the whole commercial world. Since this was caused chiefly by the destruction of man-power during the war and by the shortage of capital produced by the war, it was a great but not a permanent obstacle to the development of British export trade.

The growth of local industry in practically every part of the world, however, was permanent. In particular, manufacturing activity had increased greatly in Empire countries, Canada, Australia, and India, and in the various South American countries. The Balfour Committee held that British export trade could never hope to recover the ground lost through this growth in local industry, but it pointed out that this apparently discouraging development carried with it several substantial compensating advantages:

- 1) The production by many countries of the cruder types of manufacture for their own consumption was forcing international trade into articles of more specialized quality and higher cost, and in an international trade based upon quality Great Britain was in a strong position.
- 2) The growth of new industry and the accompanying prosperity could create new wants and therefore new trade.
- 3) Great Britain as a tremendous consuming market for the prod-

ucts of other countries was in a peculiarly advantageous position to secure her share of exports.

In assessing the ability of British export trade to meet the competition of other exporting countries the Balfour Report showed that some of England's competitors were greatly weakened and others greatly strengthened. In particular, after the war Germany ceased to be a great competitor in the export of manufactured goods, and Belgium had not regained her competitive position, whereas the competition of France and the United States was vastly stronger. Furthermore, the general increase in protective tariffs the world over was not yet sufficiently rapid to offset the effect of the rise in prices. A rise in prices reduces the ad valorem incidence of specific duties, and immediately after the war the general burden of tariffs was not increased except within the British Empire where British preference still remained substantial. The obstacles to the continued growth of British export trade, as outlined by the Balfour Report, were sufficiently formidable to imply a very drastic reorganization internally of British industrial output if the basic pull of sterling over the exchanges were to be continued. In shipping especially her competitive position was greatly impaired; for here the effect of foreign government monopolies, subsidies, and discriminations was most keenly felt. Nevertheless, from a long run point of view, the Balfour Report was able to paint a fairly optimistic picture without minimizing the difficulties of the present and immediate past.

#### THE COMPETITIVE POSITION OF LONDON IN WORLD FINANCE

Under these circumstances it became imperative for England to utilize every political and financial resource at her command, first to reestablish the conditions of external stability that were the essential basis for working out the solution of her own economic problems; second, to promote directly the interests of her export trade. In doing so she found herself

faced with the necessity of simultaneously cooperating with and competing against the new international financial power of the United States.

London and New York as Distributors of Capital. As early as 1921 England adopted a program of liberal foreign lending. For the four years 1921-24 average annual new capital applications for foreign, colonial, and dominion issuers in the London market were £130 million, an amount greater than American foreign lending at this time, and equal to the average of the three years 1926-28 (Ap. Table 4). This lending was controlled and directed by the continued use of informal sanctions. In dealing with these a document prepared in 1933 for the League of Nations International Institute of Intellectual Cooperation states:

"Leaving aside the year of unsettlement immediately following the conclusion of hostilities, the supervisory function on the part of the Bank first became effective in 1920, during which year no important foreign loans were issued, such overseas lending as was permitted being confined to Colonial loans, which at this period were given preference in the London market. In 1921 the restrictions upon foreign lending were relaxed, but only 3 foreign loans were issued, these being for Norway, Sao Paulo and Iceland, amounting to a total of £6,500,000."<sup>5</sup>

Empire loans succeeded one another in 1921 in rapid succession.<sup>6</sup> In 1922 Australian loans continued to be placed regularly from January to July, and India was a heavy borrower in June, July, and October. Other parts of the Empire were also borrowers, but in this year the issues of the various French Railways, the Department of the Seine, and a Czecho-

<sup>5</sup> British Memorandum 2, Part II, *Recent British Measures affecting International Finance*, p. 13.

<sup>6</sup> Australia borrowed in January and October, India in February and December, Ceylon in June and October, South Australia and Tasmania in June, New Zealand in August, the Union of South Africa in September and November, New South Wales in October, Nigeria in October, Kenya Colony in November, Western Australia in November, and the Straits Settlement in December.



slovakian loan in April marked the beginning of lending for reconstruction purposes on the continent. All three of the ABC countries of South America reappeared as borrowers on a fairly large scale. During 1923, the year of the great financial crisis in Germany, an Austrian loan in June was the only large scale, long term borrowing for European reconstruction. South American and Empire loans continued to be placed and two large issues were made for the Dutch East Indies. The very small figures for loans in the last months of the year, which are seasonally active months in the new issue market, reflected the foreign exchange crisis and the flight from the pound. In July 1924, with the placing of an Hungarian loan, the Dawes Loan to Germany in October, and a Greek Refugee Loan in December, lending for financial reconstruction purposes on the continent became an outstanding feature of the market. Japan also was a borrower as a result of the great earthquake in Yokohama. The distribution of British foreign lending between the Empire and foreign countries is indicated in Table 32.

This large scale revival of foreign lending, though super-

TABLE 32

*New Capital Applications in London  
Foreign, Colonial and Dominion, 1921-1925*

	FOREIGN			COLONIAL AND DOMINION			GRAND TOTAL
	Government	Corporation	Total	Government	Corporation	Total	
	(thousands of pounds)						
1921	6,020	18,329	24,349	74,535	11,713	86,248	110,597
1922	22,208	40,416	62,624	63,768	13,033	76,801	139,425
1923	21,868	21,112	42,980	73,240	19,125	92,365	135,345
1924	44,480	18,561	63,041	54,678	16,969	71,647	134,688
1925		26,002	26,002	35,717	29,261	64,978	90,980
	PERCENTAGES OF GRAND TOTAL						
1921	5.44	16.57	22.01	67.39	10.60	77.99	100.0
1922	15.93	28.98	44.91	45.74	9.35	55.09	100.0
1923	16.16	15.60	31.76	54.11	14.13	68.24	100.0
1924	33.02	13.78	46.80	40.60	12.60	53.20	100.0
1925		28.57	28.57	39.26	32.17	71.43	100.0

Compiled by Harry Angney from published prospectuses in *The Times*, *Statist*, and *Economist*; cf. Table 10.

vised and selective, caused a great deal of debate about British 'over-lending.' This had rarely been a problem before the war, for the institutional methods by which foreign lending was then carried out were sufficiently flexible to prevent its coming frequently to the surface.

Not only was the role of British foreign lending different from its pre-war role because it was controlled, but also because it was part of a radically different pattern of international lending as a whole. This contrast is admirably brought out by Professor Ohlin in *The Course and Phases of the World Economic Depression*, published by the League of Nations (pp. 28-31):

"During the half-century before the war, international movements of capital expanded very rapidly. A continuous flow of long-term capital from Western Europe to the rest of the world took place, though not of course without heavy fluctuations from year to year. . . . It is not too much to say that the building-up of modern industry and transport in most of the important areas outside Europe was made with the help of European capital and could not have been done with anything like the same speed without it. . . . The manufacturing industries of the lending nations had adapted themselves to these conditions of a continuous outflow of capital, and had built up a capacity for producing manufactured goods which could only be sold in sufficient quantities as long as the export of capital continued. In exchange for some of these manufactured commodities, foodstuffs and raw materials were imported, the production of which had become possible largely owing to new transport facilities having been created with the help of European capital. . . .

Short-term capital movements were different in character. There was no regular flow from Western Europe to the rest of the world. On the contrary, these movements went backwards and forwards as conditions changed; they acted as a kind of 'compensation balance' in international economic relations. Short-term capital was also used to finance international trade from London, the monetary centre of the world. Although the total capital employed in this way was considerable, it was small compared with the amounts involved in the long-term movements.

The war changed all this. Europe sold most of its American securities back to the United States and contracted new loans on a large scale. Russian bonds became valueless. These and other factors reduced the foreign assets of European lending nations and turned the United States from a borrowing into a capital-exporting country. In 1920, its net foreign assets excluding the Inter-Allied debts, reached the level of about \$6,000 million. British foreign assets had been reduced by a fourth, the French had fallen by more than half: in 1920 France was still a capital-importing country. The larger part of the German foreign investments had been sold or lost during the war and through the Peace Treaties.

Great Britain quickly resumed her position as an international lender on a large scale, and the United States continued to invest large sums abroad, chiefly, however, outside Europe. As monetary and political instability was unfavourable to the issue of long-term loans, the most urgent needs of the majority of European countries were met largely by short-term credits.

When the German reparation problem had been settled with the Dawes plan in 1924, a new period of further expansion opened. The Dawes loan was the first of a series of large bond issues whereby Germany absorbed more foreign capital than any other country during the next four years, and, excluding liabilities on reparations account, Germany changed from a creditor country in 1924 to the most heavily indebted country in the world after Canada in 1929.

Several countries other than Germany, which had previously been to a large extent excluded from the international capital market, went through a similar experience after the stabilization of their currencies. Up to and including 1924, the bulk of new loans floated in the United States for European account was raised by capital-exporting countries which were re-lending, chiefly on short term, to countries which were unable to raise long-term loans."

In spite of the controls imposed upon British lending and the new role of America as a capital exporter after the war, both of which had the effect of strengthening sterling in New York, a movement of private capital developed which to a

large degree had an opposite influence. America still remained a land of opportunity for the investment of foreign capital. Very substantial purchases of American securities and also of outstanding foreign securities were made by foreigners in America in 1922. The export of outstanding securities, both American and foreign, became thereafter a regular feature of the American balance of payments. These purchases were at first strongly influenced by the possibilities of profit created by fluctuations of the exchanges, and in certain years they represented a flight of capital to America from Europe. But Dr. Young has pointed out that after 1923 a rising market for securities in the United States provided the chief motive. Many dollar bonds of European borrowers were purchased in America just as sterling bonds of foreign countries had been regularly purchased in London before the war by those who liked the combination of their own securities plus a claim on sterling. By the end of 1925 foreign-owned securities held in New York amounted to about \$1,700 million. Many of these, however, were purchased on margin and represented a substantial American equity.<sup>7</sup>

This development was important for the future operation of the international gold standard in two ways. In the first place, the growth of capital exports from the United States after deducting the private investments of foreigners in America was but little greater than the steady increase in the service and amortization and dividend payments on the previously accumulated long term credits of the United States. Therefore, America was in the position occupied by Great Britain before the war of reinvesting her interest and dividend income abroad, and whenever new capital issues were insufficient for this purpose, the American exchange was bound to exercise a pull over the other exchanges of the world as sterling had done in the past when the flow of British long and short term credit was modified to draw gold to London. Such was actually the case in 1923 when, on account

<sup>7</sup> Young, *op. cit.*, p. 64.

of crises in the Ruhr and in the European exchanges in general, the American purchases of new foreign issues and old foreign securities just about offset foreign purchases of outstanding securities in America, leaving the full force of the current interest and amortization changes to express itself as a credit in the American balance of payments. During that year, as shown in Chart 21, the American exchange was strong the world over.

In the second place, the growth in international dealings in securities and their division between New York and London introduced an entirely new problem when the international gold standard was reestablished. Great as was the increase in the international mobility of short term capital, it was small compared with the increase in mobility of the private investment holdings of internationally dealt-in securities. The London stock exchange remained the greatest market for international securities in the world, but it had become subject to a new type of competition, and those who were concerned with the regulation of the exchanges had to face unpredictable movements of funds resulting from the private movement of securities without adequate techniques for measuring their magnitude.

New York and London as Grantors of Acceptance Credit. During the British campaign for parity with gold there was a conscious and severe competition between London and New York for the available foreign trade acceptance business. In this contest the strength of London, resting upon ancient tradition, long established foreign banking connections, and exceptional means of communication, was very great. The area over which sterling exercised a stronger influence than the dollar was not confined to the countries enumerated as moving with sterling in our account of the fluctuations of exchange rates, but included also many countries of the Near East, and China whose import trade is carried on in sterling. Even when the pound was most depreciated, bills drawn

against the shipment of goods from the Far East to the United States were still to be seen in Lombard Street.<sup>8</sup> The British government gave its official support to private enterprise in this field through the Overseas Trade (Credits and Insurance) Act of 1920 and the Trade Facilities Act of 1921,<sup>9</sup> but this was more significant as evidence of a changed attitude than as a market factor. In the United States, on the other hand, strenuous measures were taken to develop the acceptance market and to widen the sources from which bills might be drawn on New York. The expansion of the American foreign banking system was continued, although in this respect the story was, on the whole, one of failure. New legislation was passed to encourage the formation of corporations especially equipped to introduce the foreign acceptance business and three acceptance corporations of the British type were organized which later occupied a relatively important position in the New York market. This competition was rendered even more intense by the efforts made in Amsterdam to broaden the scope of the guilder acceptance.

Mr. Spring-Rice estimated that, after the war-time decline, sterling acceptances had risen to about the pre-war level of £350 million, but that in March 1920 they began to decline. During 1920 and 1921 the acceptance liabilities of the Lon-

<sup>8</sup> Beckhart, *op. cit.*, III, 312.

<sup>9</sup> The Overseas Trade (Credits and Insurance) Act of 1920, 10 and 11 Geo. V Ch. 24, set up a revolving fund of £26 million to be used by the Board of Trade to grant credits for the export of British goods to certain specified countries, and to arrange for the insurance of such goods if insurance could not otherwise be obtained on reasonable terms. The specified countries were Finland, Latvia, Estonia, Lithuania, Poland, Czechoslovakia, Georgia, Armenia, Serb-Croat-Slovene State, Roumania. The Board of Trade was authorized to add the name of any country whose trade had been disorganized by the war. By the Trade Facilities Act of 1921 (11 and 12 Geo. V Ch. 65) this limitation to countries with disorganized trade was removed completely and the Board of Trade was authorized to give guarantees in connection with the credits. The original Act, which was dated August 9, 1920, limited the credits to three years. By a series of amendments the right to grant credits and give export guarantees was periodically extended. By 24 Geo. V Ch. 12, 1934, the period for credits expires in 1940 and for guarantees in 1950.

don joint stock banks fell 54 per cent, and Spring-Rice's estimate for the whole market at the end of 1922 was that only from £175 to £200 million were outstanding.<sup>10</sup> Acceptances outstanding in the United States remained at their 1919 peak in 1920 but fell 40 per cent in 1921. Dr. Beckhart suggests that the earlier decline in London was due to the greater self-liquidating character of the British acceptance and its closer relation to trade movements. By the end of 1922 the acceptances of the British joint stock had begun to rise again but dollar acceptances remained at their 1921 level for two years. This was a factor leading to the liberalization of the rulings of the Federal Reserve Board regarding export and import bills in 1922. American bankers began to fear that the sterling bill might replace the dollar bill even while the exchanges were unstable, and the United States might lose the advantages in this field given by the war. In 1924 dollar acceptances again increased, partly through the transfer of some export credit business to New York from London because of the differential interest rates established in June 1923 and partly because of the growth in American foreign trade that accompanied the renewal of American capital exports.<sup>11</sup> The improvement in London, on the other hand, was not sustained, and indeed the market felt that from 1922 to 1925 its main problem was a chronic shortage of bankers bills.<sup>12</sup> This was of grave concern to the directors of British finance and added to their eagerness for an early return to gold.

London and New York as Holders of Foreign Balances. The pressure placed upon the sterling exchange by the resumption of large scale British capital exports and by the vigorous effort of the City to regain its former dominance in the international

<sup>10</sup> 'The Money Market since the War,' *Bankers', Insurance Managers' and Agents' Magazine* (London, March 1923), pp. 427-8.

<sup>11</sup> The material in these paragraphs is summarized from Beckhart, *op. cit.*, III, 315-7 unless otherwise noted.

<sup>12</sup> Harris, *op. cit.*, pp. 294 and 300.

distribution of short term credit made the retention in, and attraction to, London of foreign balances as important an element in the return to gold as it had been in maintaining the sterling exchange near the old parity during the war. Here also London was forced to share with New York. London retained a large measure of the power to command foreign balances, which was a function of its performance of international financial services, and of its position as an entrepot point in world trade. The performance of similar international financial functions gave New York a similar power of commanding foreign balances. New York did not, it is true, divide the function of acting as an entrepot station in the distribution of goods with London as it divided the functions of long and short term international lending.<sup>13</sup> The most important world commodity markets remained in Liverpool and London. On the other hand, the United States, as a gold standard country, had a peculiar attraction for foreign balances seeking a haven of refuge from disturbed economic conditions abroad, and toward the end of the Restoration period New York balances were peculiarly desired by the central banks of countries setting up systems of foreign exchange control or stabilizing their currencies upon a gold exchange standard basis.

Soon after the remarkable redistribution of foreign balances connected with the immediate financial aftermath of the war, these permanent forces began to assert themselves. Beginning in 1922, when the United States Department of Commerce first made estimates of the annual *changes* in the foreign deposits of American banks, such balances grew very rapidly. The inflow was interrupted in 1923 and 1925, but when the *total* was first estimated for 1926 it was \$1,443 million. Even this was later found to be an underestimate.<sup>14</sup>

<sup>13</sup> Cf. Ch. 18, The Capacity of New York to be an International Money Market, and Ch. 17, *passim*.

<sup>14</sup> Young, *op. cit.*, pp. 88-9.



THE LONDON FOREIGN EXCHANGE MARKET AS A CHANNEL OF REMITTANCE

After the war the world's foreign exchange markets were still characterized by the general triangular pattern of pre-war days. London was still the great market for dollars for all continental and Empire countries and for Japan. Paris was still the great foreign exchange trading market for the continent, and New York for the Canadian exchange. Probably the greatest substantial change from the pre-war pattern was the decline in the position of Vienna as the most active and expert foreign exchange trading and arbitrage center for a large portion of Central Europe.

In this system of markets sterling continued to be the main channel of remittance and inter-market settlement. This habitual practice, however, had become a source of strain and disturbance in the world's exchanges rather than the reflection of the stabilizing activity of the world's centralized international banking machinery. Many examples have already been given of the way in which the traditional middleman position of London in the foreign exchanges actually contributed during these years to exchange instability. One additional case may be mentioned—the disturbance of the sterling-dollar exchange market in September 1923, which resulted directly from the earthquake in Japan. These examples illustrate the bad effects of attempting to pass large one-way payments through the world's clearing house. Under these conditions the London market began gradually to assume more and more initiative in foreign exchange trading.

*The Choice of Leaders*

The new position of sterling as a world currency profoundly modified the foreign exchange problems of many countries. In the various schemes for the stabilization of currencies a choice was always possible between stabilizing in sterling and in gold. Certain European countries, which established new

currency systems, chose to stabilize in gold, among them Czechoslovakia, Austria, Sweden, Poland, and Russia and the Baltic States, but Hungary and Danzig stabilized in sterling. Denmark attempted unsuccessfully to do so, and Latvia, though maintaining stability with the dollar, postponed her legal return to the gold standard until Great Britain had acted. Though Germany's choice was in the end largely dictated by the creditor powers, there were signs that the alternatives were carefully considered. The statutes of the Gold Discount Bank gave it the right to issue notes expressed in sterling. Even the Dawes Report was interpreted as giving Germany the option of stabilizing in gold or sterling. This caused alarm in high financial quarters both in Great Britain and the United States. The Federal Advisory Council of the Federal Reserve system expressed itself on the question as follows (*Federal Reserve Bulletin*, July 1914, p. 460):

"It [the Dawes Report] provides for a German note-issuing bank on a gold basis, but leaves the door open to place it on a sterling basis, and it can not be denied that there is no small probability of the latter basis being chosen. In the opinion of the Council the sooner Germany can be placed on a gold or gold exchange basis, the sooner can England, and other countries also, return to an unrestricted gold standard, while if Germany were placed on a sterling basis, England—in returning to an unrestricted gold basis—would have to pull not only her own weight but that of Germany also. It is obvious, therefore, that, if the new German bank is placed on the sterling exchange basis, the world must prepare itself to remain on a basis of exchange instability for a prolonged period, the end of which can not be foreseen, while the adoption of the gold (that is, the dollar) basis would accelerate the return to world-wide stability."

This statement called forth a vigorous reply from Walter Leaf of the Westminster Bank Ltd., which may be quoted at length as representative of the orthodox City view:

"The recent report of the Advisory Council of the Federal Reserve Board of the United States has attracted well-deserved attention, chiefly because it seems to be directed to a policy aimed

at taking advantage of the proposals of the Dawes Report in order to supplant the pound sterling by the dollar as the basis of international finance. They say that the Report 'provides for a German Note Issuing Bank on a gold basis, but leaves the door open to place it on a sterling basis, and it cannot be denied that there is no small probability of the latter basis being chosen.'

The Dawes Report itself speaks only of a basis of gold marks, and it is not easy to see where the door is left open to sterling, which is not mentioned in this connexion. It seems quite clear that the only proposal is for the 'adoption of the gold—that is, the dollar—basis.' Germany is to return to a gold currency and is to be rigidly kept to it for exchange purposes, provision being made for the regulation of the payment of such reparations as may become due so that the consequent demand for foreign valuta shall not lead to a collapse of exchange rates. Presumably the Advisory Council has in mind the possibility, or even probability, that under this provision the German exchange might be allowed to fall to the level of sterling and be maintained there instead of at the gold (dollar) parity. The intention of the Report is that the resources of the Federal Reserve Banks should be freely used in the purchase of gold mark bills in order to maintain the parity of the mark exchange.

It cannot be denied that there is here a serious challenge to the international position of the pound sterling. It may be urged that hitherto the pound, in spite of the depreciation from which it has long suffered, has held its own against the dollar and that London is at least as much the center of international finance now as it was before the war. London, no doubt, holds its place because of its commercial relations, so widely spread throughout the world; whereas America, which made a bid for similar relations after the war, has practically abandoned the competition; and it may be true that, until the United States can hold her own in world trade, they cannot seriously think of supplanting the pound by the dollar.

But a new prospect is opened up by the Dawes Report. Germany is not only to be put upon a gold basis and strictly kept there; but she is to be stimulated to an enormous expansion of exports, such as will put her in first place among the nations engaged in world commerce. The possibilities of a combination

between the dollar and the gold mark, between the credit resources of the United States on the one hand, and German enterprise and world commerce on the other, form a prospect which cannot be regarded without anxiety, so long as the pound is depreciated in the exchange markets of the world. To put it plainly, the depreciated pound would be squeezed out of world finance between the two great gold currencies, the dollar and the mark. In self-defence we should be forced to a gold basis for the pound whether we wished it or not. Is it not time that we should face the situation soon, and take steps for restoring our parity of exchange in our own time." <sup>15</sup>

In Empire countries, also, there was impatience with delay in stabilizing the pound on a gold basis. In fact, pressure from Australia and South Africa and the latter's determination to return to gold regardless of what Great Britain might do, were factors in the final British decision as to the time and manner of Great Britain's own return to gold.

#### *The Return to Gold, Itself a Prestige Measure*

The competitive aspect of the return to gold has never been wholly absent from any phase of our discussion of Restoration. It was basic in our analysis of the Characteristics and Significance of Gold Movements, 1920-24. Our treatment of the Dance of the Price Levels and Following the Leader has dealt with the movement of prices and exchange rates as part of a conflict to decide what countries should bear the burden of the readjustments required by the return to gold and in what proportions. Even the funding of the British war debt to America upon the principles of the Balfour Declaration <sup>16</sup> had its competitive side. It may be conceived of not

<sup>15</sup> *Westminster Bank Review*, June 1924, p. 3.

<sup>16</sup> On August 1, 1922 the British government in a note, known as the Balfour Note, suggested the possibility of Great Britain renouncing her share in reparation in return for a general settlement of reparation and inter-allied debts, but added that, "if this is found impossible of accomplishment . . . in no circumstances do we propose to ask more of our debtors than is necessary to pay our creditors. And while we do not ask for more, all will admit that

only as a great reaffirmation of the principle of sanctity of contract and a demonstration of the soundness of British credit, but also as a measure of prestige in the struggle for world influence between the pound and the dollar. For this a heavy price had to be paid, for the funding of this debt made the whole German reparation problem intractable, indeed almost insoluble by ordinary means. Finally Great Britain's own return to gold, in the whole breadth and scope of that phrase, may likewise be conceived of as a great measure of prestige to bring back to London the dominating influence that made sterling the true international standard before the war, and to render the question Who is Leader? in currency matters once more unnecessary.

#### The Common Objective, the Cooperative Aspect of the Return to Gold

In spite of the competitive elements analyzed above, the return to gold after the war had another and equally important side. It was in many ways a great cooperative effort. There was a common recognition of the interest of all countries in putting an end to the era of fluctuating exchanges, unbalanced budgets, and impediments to trade. There was also a common feeling that the agencies for international financial and economic cooperation with which the world was equipped at the close of the war were inadequate to meet the new situation. The need for cooperation was stressed in both popular and technical financial literature. It was recognized in continuous and earnest international consultation by both private and central bankers, and was reflected in their administrative acts. Finally, it was the subject of formal international deliberation in conferences called for the purpose—the Brussels Conference of 1920, the Genoa Conference of 1922.

we can hardly be content with less." Cmd. 1737; cf. John W. Wheeler-Bennett and Hugh Latimer, *Information on the Reparation Settlement* (London, Allen and Unwin, 1930), pp. 47-8.

*The Conference Method and its Results*

## THE AFTERMATH OF THE BRUSSELS CONFERENCE

The Brussels Conference, summoned by the Council of the League of Nations, was a conference of experts, not of governments. These experts represented 39 countries including the Central Powers. They examined the problem of financial reconstruction from a non-political point of view. Though all questions under negotiation between the Allies and Germany, including of course reparation, were excluded from their agenda, they were able to develop in their discussions, if not to embody in their formal resolutions, the main outlines of a general stabilization program. The Brussels Conference was also fruitful in suggestions for new international agencies. It recommended the creation of an international organization to help financially weak states to finance the importation of essential raw materials. It recommended also an International Clearing House. Most important of all it recommended that the Council of the League form a provisional Economic and Financial Commission pending the establishment of a permanent organization. This recommendation was acted upon by the Council at its meeting in Brussels in October 1920. The Commission and a technical committee consisting of two sections, one economic and one financial, was immediately set up. In its permanent form this became the Economic and Financial Commission of the League of Nations, consisting of the two sections, but presided over by a common chairman and assisted by the economic and financial section of the Secretariat. This Commission served as the advisory body of the League on all economic questions within its competence and susceptible of solution by international agreement.

The question of how to direct the flow of private international lending to countries impoverished by the war, raised at the Brussels Conference, was earnestly discussed at Geneva

during the two years following, particularly in the form known as the Ter Meulen Plan. Concerning these discussions F. A. Van Woerden writes:

"The idea of protecting states which were forced by their financial embarrassments to borrow was born at the Brussels Conference. A Dutch banker, Mr. Ter Meulen, then worked out a plan to establish a system of international guarantees in behalf of weak and poor borrowers which for two years was the subject of profound study at Geneva. Under it the League of Nations was to act as intermediary between borrowing and lending states to guarantee the security of the lending and the independence of the borrowing states. No such organization was created, but the Financial Committee was guided in its practical work of financial reconstruction in Europe by the leading ideas which grew out of these general discussions."<sup>17</sup>

The general program of the Brussels Conference was not carried into effect. Within sixteen months after its meetings the currencies of Poland and Austria had collapsed and the German foreign exchange crisis had grown steadily worse. The Five Power Conference at Cannes in January 1922 was therefore led to convoke a new Economic and Financial Conference at Genoa.

#### GENOA CONFERENCE

The Genoa Conference was a conference of governments, not of experts. The former enemy powers and Russia were invited to participate. Its agenda were more inclusive than those of Brussels and covered broad economic as well as financial topics. The most comprehensive statement of the post-war stabilization program is found in the resolutions of its Financial Committee.

The Financial Resolutions of the Conference. These famous resolutions reiterated the official conclusions of the Brussels

<sup>17</sup> *La Société des Nations et le Rapprochement Economique International* (The Hague, M. Nijhoff, 1932), p. 18. The material in these paragraphs is taken from this source.

Conference and expressed formally many views developed in its discussions. In addition, they advanced theoretical views which never became an accepted part of the practical stabilization program, but were, nevertheless, indirectly very influential in post-war gold standard history. Among these was the suggestion that central bankers should direct their policy so as to avoid fluctuations in the purchasing power of gold—a recommendation expressly rejected by the Brussels Conference and never accepted by the central banks. The Genoa resolutions not only defined the common objective of the new international financial collaboration but also suggested the techniques to be followed and the agencies to be established in carrying it out. They dealt with three major aspects of the problem:

1) The Common Objective. The essential prerequisite of economic reconstruction in Europe was the achievement by each country of stability in the value of its own currency. It was desirable that all European currencies be based upon a common standard. The only common standard upon which all European countries could agree was gold. It was to the general interest that all European governments declare that the reestablishment of the gold standard was their ultimate objective and agree upon a program by which to achieve it (Resolutions 1, 4, 5, and 6).

2) Techniques to be Adopted. The first and essential steps in achieving this common purpose were to balance national budgets by contraction of expenses rather than by increase in taxation, to stop inflation by ceasing to cover budget deficits by recourse to paper money or to bank credit, and to cease borrowing for unproductive purposes. The next was to determine and fix the monetary units at either the old or some new parity. Once these things were done it was desirable to use the following methods of increasing exchange stability: to devise ways and means for economizing gold by the adoption of the gold exchange standard, including a system of special guarantees of the safety and freedom of movement of



inter-central bank deposits; to set up a system of forward exchange markets, preferably by private initiative, but failing that by central bank initiative; to coordinate the demand for gold and to stabilize credit in such a way as not only to keep currencies at par with one another but also to prevent undue fluctuations in the value of gold which might result from the effort of so many countries to return to gold at the same time (Resolutions 7, 8, 9, 11, 14, 15, and 17).

3) Agencies of Cooperation. The chief agency in carrying out these techniques was to be the close and continuous cooperation of central banks, including the Federal Reserve system. To make this cooperation inclusive central banks were to be created where none existed. To make it effective central banks were to be freed from political influence. To make it authoritative an International Monetary Convention was to be negotiated, the details of which were to be examined at a conference of central banks to be called by the Bank of England. In addition, an International Consortium of National Consortiums was to be established in order to renew the flow of private international long term credit. Loans between governments were to be resorted to only in exceptional cases (Resolutions 2, 3, 10, 11, 12, 16, and 19).

The Proposed International Monetary Convention. The international gold standard has several times been referred to in these studies as an international convention established by the common and tacit agreement of nations to act in a certain way with respect to the metal gold. Resolution 11 of the Genoa Conference proposed that the governments of European states bind themselves by a formal International Agreement to adopt a common course of action with respect to gold. Each government was to declare that its ultimate objective was to return to the gold standard and to pledge itself to carry out as soon as possible the following program: to balance its budget, to fix the value of its currency, to make this value effective in a free market, and to accumulate an ade-

quate reserve which should not necessarily be entirely in gold. When the process of economic reconstruction had gone far enough, certain countries were to establish free gold markets and become gold centers. Participating countries were to be permitted to keep, in addition to their gold reserve at home, reserves in the form of balances, bills of exchange or other short term assets, in every other participating country. In practice each participating country was to buy and sell the exchange of other participating countries at rates not deviating from established parities by more than an agreed-upon amount. If any participating country did not maintain its currency at the fixed value it was to lose its right to hold the reserve balances of other participating countries. Every government was to be responsible before the Convention for putting into effect the necessary legislation and administrative measures to keep its moneys at par with other currencies and was to be free to employ any method it chose to accomplish this end. The object of these measures was, first, to preserve a system of stable exchange rates, and second, to prevent large fluctuations in the value of gold. The freedom of action of central banks in attaining these objectives was not to be limited, but their collaboration in so doing was to be assured.

In this proposal the Genoa Conference recognized that stable internal credit conditions were the prerequisite of a system of stable international exchange rates. In its plan for the revival of private international lending it laid down the rule that such lending should take place only under conditions that would contribute to credit stability in the borrowing countries. In its suggestions concerning gold centers it recognized the existence of a hierarchy of money markets and, by imposing upon any country that did not keep its currency stable the penalty of losing the right to hold the reserves of other countries, it recognized the peculiar importance of stable conditions in the central money markets. In its scheme for a generalized gold exchange standard system established by international agreement it hoped to attain by planned and

conscious effort some of the economic results formerly derived from the unimpeded functioning of the London-centered world banking system.

#### THE PROGRAM OF COOPERATION

The continuous interchange of ideas immediately after the war produced by 1922 not only agreement on the general objective but also a program of action that may be summarized in a few broad generalizations:

- 1) to balance national budgets and stop inflation
- 2) to direct the flow of long term capital to countries financially and economically disorganized by the war and to safeguard that capital
- 3) to generalize and develop the institution of central banking and to safeguard the independence of central banks
- 4) to adopt measures of gold economy
- 5) to reach a settlement of past debts.

#### *New Agencies of Cooperation*

The intensive international discussion brought into existence also new instrumentalities for making this program effective.

#### THE ECONOMIC AND FINANCIAL COMMISSION OF THE LEAGUE OF NATIONS

The Economic and Financial Commission of the League of Nations was one of the first fruits of the post-war search for new agencies of cooperation. No separate treatment of its organization and work will be given here both because of the voluminous and adequate literature already available and because the plan of these studies requires the treatment of particular phases of its work in their relation to the history and interpretation of the international gold standard as a whole. The first major contribution of the Commission to the economic reconstruction of Europe was made when the application of Austria to the Allied Powers for financial help in August 1922 was referred to the Council by Mr. Lloyd-

George. To the task of helping Austria the League brought the fruits of its prolonged consideration of the Ter Meulen Plan and the well developed ideas of the Brussels and Genoa Conferences.

#### NEW CENTRAL BANKS AND NEW CENTRAL BANKING

International cooperation in currency matters implies that control over money and credit policy shall be unified within each country. Unified control implies the presence of a strong central bank. In the minds of the immediate post-war generation of bankers and statesmen it implied also the existence of a central bank independent of government control, not loaded down with a burden of heavy advances to the government, and protected from fresh demands from government for direct advances. The development and reorganization of central banks became, therefore, a cardinal feature of all currency stabilization plans. In order to get financial help from the League of Nations, governments had to assume certain obligations defined in protocols. In these protocols the establishment or reorganization of their central bank according to certain well defined principles was given a prominent place. In the statutes of central banks drawn up by the Financial Committee of the League of Nations for Austria, Hungary, Estonia, Greece, and Bulgaria in turn, a sort of codification of the general trend of European thought in central banking was worked out. This was most precisely stated in the statutes of the National Bank of Greece, which, according to Sir Arthur Salter, embodied all the experience of the previous stabilizations.<sup>18</sup>

In these various statutes the League of Nations insisted on not giving a controlling vote to governments, and also tried to secure so wide a distribution of shares as to prevent control

<sup>18</sup> League of Nations *Document e 556 M 198, 1927*, II. The discussion of the reorganization of European central banks in the text is based on Edmond Ulrich, *Les Principes de la Reorganisation des Banques Centrales en Europe après la Guerre* (Université de Strasbourg, Faculté des Droits et de Sciences Politiques, Recueil Sirey, Paris, 1931), *passim*.

by private groups. It also limited the advances the central bank could make to the state. In this the Financial Committee was guided by the British practice governing ways and means advances to the Treasury by the Bank of England. The basic principle was that the government should not get from central banks the means of meeting its expenses over a long period. Direct advances to the state by the bank should be only to meet temporary needs and expenses authorized in the national budget.<sup>19</sup>

The Financial Committee wished not only to safeguard the independence of central banks, but also to give them power and authority in their own markets. It therefore uniformly followed the rule of giving the central bank the exclusive right of note issue and adhered to the British precedent of concentrating all government transactions in the hands of the bank.

With respect to the assets of the central banks the Financial Committee insisted that they be short term and self-liquidating. As M. Ulrich has pointed out, this meant that, in spite of the potential advantages, especially in undeveloped countries, of commercial advances by central banks, the League of Nations came out flat-footed for the pure central bank.

All these principles were in one way or another related to the general aim of giving to the central bank independence, freedom, and capacity to maintain the stability of currencies. The Financial Committee, in considering the reserve requirements of banks of this character, recognized the similarity of notes and deposits as potential demands upon reserves and also followed the recommendations of the Genoa Conference in providing for the inclusion in reserves of various foreign exchange items as well as gold. It summed up its conclusions on this point in the statutes of the National Bank of Greece

<sup>19</sup> The application of rigid limitations upon the power of the Reichsbank to make advances to the state according to this general principle, which became an integral part of the Dawes and Young Plans, was later destined to have far-reaching consequences.

which provided for maintaining gold and gold exchange reserves, without a gold minimum, against both notes and deposits.

The establishment and reorganization of central banks carried out in a few countries by the League of Nations was part of a world-wide movement based in the main upon the same general conceptions. The new states created by the Peace Treaties at once established central banks. In Czechoslovakia the Banking Office of the Ministry of Finance was established by law in April 1919, and a note-issuing central bank was created in April 1920. New central banks appeared in Yugoslavia in 1920 and in Latvia and Lithuania in 1922. The new Russian State Bank was organized in 1921, the Bank of Danzig in 1923, and the Bank of Poland in 1924. By the reforms of 1920 and 1924 the Commonwealth Bank of Australia became a true central bank. In 1921 the Reserve Bank of South Africa began to operate and the three Presidency Banks in India were amalgamated as the Imperial Bank of India. New statutes were drawn up for the Bank of Brazil in 1923, and between 1921 and 1924 central banking was provided in Colombia, Costa Rica, Peru, and Uruguay, largely with the help of American advice and capital. The old established central banks were not exempt from the influences that determined the character of the whole movement, particularly the desire to make central banks independent of government domination, to free them from burdensome advances to the state, and to strengthen their control over the money markets.

Great progress was made, especially in 1923 and in 1924, in cutting down the indebtedness of governments generally to their central banks.<sup>20</sup> This was accomplished in some countries by foreign loans, in others by domestic loans or the assignment of the proceeds of certain taxes, and in still others

<sup>20</sup> This progress is described with a wealth of statistical detail in the League of Nations *Memorandum on Currency and Central Banks, 1913-1924*, I, 91-103.

by the use of profits from the revaluation of gold stocks. The influence of government on the formulation of central bank policy, however, could not be eliminated. The necessity for close cooperation between the Bank of England and the Treasury, and the increase in the authority of the Bank because, in certain matters of importance to the money market, it expressed Treasury views, has been shown above. The official relation between the French government and the management of the Bank of France was not changed, and the great importance of government deposits at the Bank of France gave it additional weight and power in the Bank's councils. The Swedish Riksbank remained a state bank, and state banks were established in Czechoslovakia, Russia, and Poland. Yet the central idea of safeguarding central banks from political interference in carrying out their responsibilities toward the currency was very influential, even dominant in countries in which inflation had been accomplished by subordinating the central banks to the fiscal needs of the government during the war, and was a reversal of the pre-war trend toward strengthening the relations between the state and the central bank.

The power of the central banks over their own money markets was promoted in various ways, but particularly by the development of open market operations as a major instrument of policy.<sup>21</sup> In this respect the Bank of France and the Reichsbank were conspicuous exceptions, but the Reichsbank was able to exercise open market powers indirectly through the Gold Discount Bank, which it controlled. Though open market operations were important before the war, the pre-war discount rate policy of central banks was not supported by the creation and retirement of credit by central banks in the degree characteristic of the post-war period. This was a real modification of the mechanism of credit control and greatly helped the central banks to carry out policies of mutual accommodation and cooperation.

<sup>21</sup> Cf. League of Nations *World Economic Survey*, 1931/2, p. 203.

### THE MONEY DOCTORS

Among the new means of international financial cooperation of the post-war period must be included the work of the monetary expert in the international field. The appointment by the Wirth Ministry in Germany of an independent commission of experts consisting of Messrs. Brand, Cassel, Jenks, Keynes, Vissering, Dubois, and Kamenka, to recommend a course of action in the reparation crisis that caused the rapid decline of the mark in 1922, the Kemmerer-Vissering Commission to South Africa in 1924, and the work of the representatives of the Financial Committee of the League of Nations and other similar experts constituted a new phenomenon in the reconstruction of the world's financial and credit machinery.

#### *Types of Cooperative Effort*

The common purpose of achieving stability by returning to the gold standard after the war was expressed in several well defined types of cooperative effort in which all the agencies of cooperation, old and new, were utilized to make effective the common program. In considering them it would be an error to overlook certain imponderable influences that grew out of the personal relations of the men in a position to shape events.

### IMPONDERABLES OF CENTRAL BANK COOPERATION

During all these years many of the world's financial leaders came to London for advice and help. The Bank of England provided leadership in the whole effort of post-war financial restoration which finds its true record in countless personal conversations in which policy was made or influenced, and in which British support was thrown into the balance or withheld. In the exercise of these responsibilities London had always, however, to take account of the new position of the United States in world finance. Close collaboration between



the makers of British and American financial policy became of the very greatest importance in a situation that required the most delicate adjustment between conflicting national interests and a common international objective. Personal factors, such as the mutual confidence and esteem existing between the Governor of the Bank of England and the Governor of the Federal Reserve Bank of New York, were imponderables that constituted an essential part of the true record of the return to gold. They are part of the background that influenced the external forms of cooperation—administrative acts of central banks, measures of gold economy, and international credit operations.

#### AGREED INTER-MARKET DIFFERENTIAL INTEREST RATES

One of the fruits of the collaboration of central banks was the inclusion, in the aims of American credit control policy in 1923 and 1924, of assistance to England in returning to gold through a change in the differential interest rate relation between London and New York and the use by the Bank of England of its influence in the London market for the same purpose (Charts 25 and 48).<sup>22</sup> The American preparations for easier money rates began with the inauguration of open market purchases late in 1923. The rate for 60 to 90 day collateral loans in New York began at that time to fall. Three successive reductions in the discount rate of the Federal Reserve Bank of New York in the summer of 1924 were slightly preceded by corresponding declines in open market rates. Meanwhile, the Bank of England was not inactive. Its part in the operation is described by *The Economist* (Banking Supplement, May 9, 1925, p. 4) :

“. . . the tie between the Bank rate and the market rate was quietly tightened at the end of July by an arrangement among the clearing banks, under the inspiration, as it was believed, of the Bank of England, by which their weekly loans to the Discount Market were fixed at  $2\frac{3}{4}\%$  instead of  $2\frac{1}{2}\%$ . At the same

<sup>22</sup> Cf. Ch. 10, *Beginnings of Credit Control, 1922-1924.*

TABLE 33

*Market Rates of Interest, London and New York, 1923-1925*

BANK RATE, LONDON		DISCOUNT RATE, F.R. BANK OF N. Y.	
<i>1923</i>		<i>1923</i>	
Prior to July 5	3	Prior to Feb. 23	4
July 5	4	Feb. 23	4½
<i>1924</i>		<i>1924</i>	
All year	4	May 1	4
<i>1925</i>		June 12	3½
March 5	5½	Aug. 8	3
Aug. 6	4½	<i>1925</i>	
Oct. 1	4	Feb. 27	3½
Dec. 3	5		

60-90 DAY TIME LOANS, NEW YORK CITY <sup>1</sup>90 DAY BANKERS ACCEPTANCES, NEW YORK CITY <sup>1</sup>

	<i>1923</i>	<i>1924</i>	<i>1925</i>	<i>1923</i>	<i>1924</i>	<i>1925</i>
January	5	5	3½	4½	4½	3½
February	5½	5	4	4½	4½	3½
March	5½	5	4½	4½	4½	3
April	5½	4½	4½	4½	4½	3½
May	5½	4½	4	4½	3½	3½
June	5½	4	4	4½	2½	3
July	5½	3	4½	4½	2½	3½
August	5½	3	4½	4½	2½	3
September	5½	3½	4½	4½	2½	3
October	5½	3	5	4½	2½	3½
November	5½	3½	5	4½	2½	3
December	5½	3½	5	4½	3	3

THREE MONTH BANKERS BILLS, LONDON <sup>2</sup>

January	2.32	3.37	3.86
February	2.53	3.57	3.89
March	2.33	3.22	4.52
April	2.15	3.10	4.34
May	2.07	3.09	4.62
June	2.14	3.07	4.48
July	3.28	3.63	4.40
August	3.23	3.82	3.99
September	3.22	3.82	3.73
October	3.20	3.77	3.63
November	3.33	3.76	3.96
December	3.37	3.77	4.73

SOURCES: *Statistical Abstract of U.K.*, 1932, pp. 213, 215; *Statistical Abstract of U.S.* 1930, pp. 253, 298-9

<sup>1</sup> Highest for month.<sup>2</sup> Average of highest daily rate.

time, there was some modification of the practice by which, at times of stringency, what the bill brokers called a 'hidden hand' used to come to the rescue, and by purchase of short-dated Treasury bills, or otherwise, ease the position."

This episode was by no means an isolated example of central bank cooperation by administrative action. It was significant as a precedent. Specifically it was important not only to England's effort to return to gold but to that of other countries as well. In its *Memorandum on Currency and Central Banks, 1913-24* (I, 44-5), the Financial Committee of the

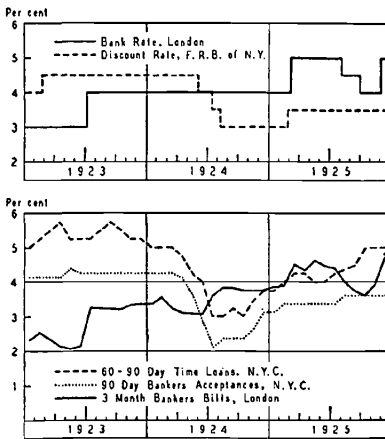


CHART 25

*Market Rates of Interest, London and New York, 1923-1925, monthly*

League stated that the reductions in New York rates in the summer of 1924 were "of great international importance," for they enabled European countries "to improve the value of their currencies without any change in their official rates."

#### MEASURES OF GOLD ECONOMY

The recognition of a common interest in economizing gold forced the central banks to accept certain new obligations to cooperate, which became increasingly important after England's return to the gold standard. The first great measure of gold economy, the elimination of gold from domestic circulation, was usually conceived of as a temporary expedient pend-

ing the return of conditions when the 'full' gold standard could be restored. In some countries the reluctance to adopt the gold bullion standard was so great that some outside pressure was needed to overcome it. This was provided by strong representations on the part of the Bank of England that such action would be a contribution to the general success of the stabilization effort as a whole. Without the informal pressure accompanying such advice, several efforts to return in one step to the full gold standard would undoubtedly have been made. The second great measure of gold economy, the gold exchange standard, implied cooperation on an entirely new scale, and because of the underlying competitive features of the return to gold this cooperation was destined to become exceedingly difficult. It involved a mutual responsibility on the part of the markets accepting the deposits of the central banks of gold exchange standard countries, and on the part of those central banks themselves. The banks holding reserve balances in foreign exchange had to decide the proportion that was to be in dollars or sterling, and the movement of these balances from one market to another was one of the contributing elements in the instability of the world's international credit system. The spread of the gold exchange standard, under post-war conditions, also brought the question of the safety of balances deposited in central money markets into prominence. Because of a new psychological element never present before the war, namely, lack of confidence by large masses of people in money itself, the question of how long the central banks adopting the gold exchange standard would refrain from exercising the claim on gold that their foreign balances conferred was always present. Confidence, cooperation, trust—these were the absolute requirements of a successful gold exchange standard system. The decentralization of the world's financial structure added to the technical difficulties of operating this standard. The memories and the fears of the post-war years undermined its moral and psychological foundations.

## SETTLEMENT OF PAST DEBTS

Of all the types of cooperative effort required to restore international currency stability the most difficult and the most pressing was the settlement of the intergovernmental debts inherited from the war. The outstanding achievements in this field during the Restoration period were, of course, the Anglo-American debt agreement of 1923, and the temporary settlement of the German reparation problem under the Dawes Plan in 1924. Whatever their long run consequences these settlements removed for a time a standing threat which had often violently disrupted the exchanges and impeded the return to stability.

## INTERNATIONAL CREDITS

Cooperation by consultation, by administration of credit policy, by the adoption of programs of gold economy, and by the settlement of past debts was supplemented by and coordinated with a program of international credit extension. We shall not anticipate here our discussion in Experimentation, Part II, of European currency stabilizations in which international credit operations played so large a part. A simple enumeration of the most outstanding of these credits will indicate their extraordinary variety and scope.

The currency stabilizations of Czechoslovakia, Austria, Denmark, Sweden, and Poland from 1921 to 1924 were carried out with the aid of foreign loans. In 1921 Czechoslovakia, the first of the central European powers to secure foreign aid for this purpose, received two loans in dollars and one in sterling. In 1922 British credits offered through the League of Nations were part of the attempt at stabilization in Austria. In 1923 Denmark tried to stabilize at various times with the aid of credits obtained in London and New York. In 1924 Sweden obtained credits for stabilization purposes in New York and France, and in 1924 the attempt to establish the new currency of Poland was aided by Italian credits. In 1924

substantial aid was received by the French government through loans placed in New York which checked a flight from the franc. These contributions to the process of currency restoration were usually preceded by long negotiations, and were often accompanied by rigid requirements concerning the policy of the recipient, yet they are an impressive demonstration of international financial cooperation. This included also certain other credits of a different character, such as the relief loans to Austria and Belgium and the loans secured by Japan in London and New York after the earthquake.

The most striking examples of all are furnished by the League of Nations loans to Austria, Hungary, and Greece, and by events in Germany. The course of the German exchange and of the European exchanges in general in New York was effected in 1921 and again in 1922 by the possibility of international credits to Germany. In 1923 the German Reichsbank received a loan from Great Britain in sterling to enable it to subscribe to its share of the capital stock of the Gold Discount Bank. This was followed in 1924 by the international loan that put the Dawes Plan into operation, the greatest single achievement of a cooperative character of the whole period.

## CHAPTER 12

### *The Return to Gold, 1924–1925*

Many of the threads running through the historical narrative and analytical argument of preceding chapters are brought together in the German stabilization under the Dawes Plan in October 1924. It is the natural concluding point of the discussion of *Following the Leader*, *Who is Leader?*, and the *Common Objective*. The relief given the sterling exchange by the ending of the long series of pressures arising directly from the reparation conflict removed an ever recurring obstacle to the recovery of sterling. The adherence of the German mark to an already large group of dollar currencies, instead of to the group of sterling currencies, strengthened every motive, driving England to hasten her own return to gold. The German stabilization also provided the severest test of the post-war principles of currency reform. In the bitterly fought contest waged over reparation the fivefold program of cooperation in restoring currency stability was laboriously brought to fruition and applied to Germany. All its elements—the resolve to stop inflation, the direction of capital to countries impoverished by war and inflation, the strengthening and safeguarding of independent central banks, the adoption of measures of gold economy, and the settlement of past debts—are embodied in the Dawes Plan. All were born out of conflict and all had far-reaching consequences in future years.

#### The Place of the Dawes Plan in Gold Standard History *Political Economics, 1919–1924*

The history of the German currency from 1919 to 1924 had a symphonic structure. From 1919 to 1921 the dominant

theme in all decisions concerning Germany's international economic and financial relations was the political and military one of reparation for war damages. The theme of technical economic cooperation was first introduced by the invitation to Germany to attend the Brussels Conference in 1920. It was clearly heard in the resolutions of that Conference but was soon overborne by the fixing of the total German reparation debt by the Reparation Commission at 132 milliard gold marks and the forced acceptance by Germany on May 21, 1921 of the schedule of payments laid down in the so-called London Ultimatum.<sup>1</sup> In spite of the law of September 8, 1919, directed against the flight of capital, which prescribed that payments to foreign countries should be made only through banks and notified to the revenue authorities, the mark declined under pressure of these payments. This decline was accelerated after the Upper Silesia award of October 1921, though the exchange control was strengthened by requiring special permits to export and diverting part of the proceeds of exports to the Reichsbank. These defenses were wholly inadequate. The depreciation of the mark continued and was a cause of inflation within Germany. "The true cause of the inflation after the war," wrote Dr. Schacht, "was the perpetual pressure exercised by the Reparation Commission on Germany in the attempt to extort payments to foreign countries which in the nature of things could not be made."<sup>2</sup> No effective resistance to this inflationary pressure could be expected at that time from the Reichsbank which, until May 1922, was in reality only a government department acting under the Chancellor's orders. Even in 1921, however, the theme of

<sup>1</sup> These are summarized by J. W. Angell, *The Recovery of Germany* (Yale University Press, 1929), p. 19: "Germany was required to deliver three sets of bonds, for 12, 38, and 82 milliards of gold marks, respectively; was to pay 1 milliard marks through the summer, and thereafter 2 milliards a year; and in addition was to pay over the proceeds of a 26 per cent tax on her exports to the Allies, up to a total sum on all accounts of 3 milliards a year."

<sup>2</sup> Hjalmar Schacht, *The Stabilization of the Mark* (London, Allen and Unwin, 1927), p. 55. The details of German currency history, the reparation conflict, and the German stabilization given in this section are taken from this source unless otherwise indicated.



technical economic cooperation was faintly heard. In March the German government, in a note to the United States, endeavored without avail to establish the principle of adjusting reparation to capacity to pay. In December it declared that payments could not be continued without a moratorium, and an agreement was reached to place payments under the London Ultimatum on the basis of delivery of 31 million gold marks every ten days.<sup>3</sup> For the moment, mark depreciation was halted.

In 1922 technical economic considerations came much more to the fore. At the conference assembled at Cannes in January 1922 the German government declared its willingness to establish the independence of the Reichsbank as a means of stopping inflation. In April it declared that it could not continue the agreed-on reparation payments without a foreign loan, and the Genoa Conference recognized the general principle that settlement of international debts must precede any successful currency stabilization in the following explicit terms: "Before the problem of international debts is boldly taken in hand, there is no hope of ultimate success in the task of restoring European currencies."<sup>4</sup> By summer 1922 the economic theme, which was thus gradually making headway, became thoroughly articulated. All the essential elements of a stabilization program were clearly revealed and most of them formulated. A conference of bankers met in Paris in May to consider the possibility of a loan to Germany, and reported that such a credit could be granted only if reparation were adjusted to the capacity of the German budget. On May 26 a law was passed in Germany giving the Reichsbank the legal right and power to refuse credits to the government. The program that would eventually have to be adopted was becoming quite clear, but the French government rejected the bankers' recommendation. The mark, whose decline had been

<sup>3</sup> For details of these agreements cf. Wheeler-Bennett and Latimer, *op. cit.*, p. 47.

<sup>4</sup> *Papers relating to International Economic Conference, Genoa* (London, 1924), Cmd. 1667, p. 66.

halted in April and May, again began to depreciate, and its fall was accelerated by the murder of Rathenau.<sup>5</sup> In July the German government asked for a two year moratorium but the request was refused. A deadlock ensued during which, as shown above, the return of sterling to the old parity in New York was halted and the breakup of the sterling group was foreshadowed (Charts 21, 22, and 24). At the government's request the Reichsbank once more tried to defend the mark by using its gold and foreign exchange. The drain upon its reserves thus occasioned made it clear that in any final stabilization program some measures of gold economy would have to be adopted. In August 1922 agreements were reached that postponed cash reparation payments for the rest of 1922 and were the signal for a resumption of the rise of sterling. The decline of the mark, however, was only temporarily checked, although in October 1922 legal steps were taken to prevent the delivery of foreign exchange by banks to any person until after the revenue authorities had approved the transaction, and although war-time controls of imports were revived.

The theme of economic cooperation, therefore, though now clearly defined, was once again subordinated to that of political economics. In November the two conflicting themes were brought into a definite contrast. The Reparation Commission visited Berlin to attempt to find some way by which payments could be continued, and at the same time a conference of experts met there at the invitation of Germany to formulate a technical economic program. This program included a moratorium of several years, the adjustment of reparation to the capacity of the German budget, and foreign assistance. The choice between two paths was clear. It was made by France and Belgium in the invasion of the Ruhr on January 11, 1923 in search of "productive guarantees."<sup>6</sup>

During the first months of 1923 the exchange controls al-

<sup>5</sup> Angell, *op. cit.*, p. 21.

<sup>6</sup> Cf. Wheeler-Bennett and Latimer, *op. cit.*, pp. 49-54, for a detailed discussion of productive guarantees and passive resistance.

ready in force were supplemented by the reintroduction of war-time price controls, and the Reichsbank made one more effort to support the mark and to restrict credits. This broke down in the face of demands for assistance from the government and from Ruhr industries engaged in passive resistance. The new independent powers of the Reichsbank could not be used against the government. Inflation and the flight from the mark continued <sup>7</sup> until the complete collapse of the mark in July 1923. In that month the German government began to buy gold at a premium, and in August 1923 the old mark was officially abandoned. The military and political theme of productive guarantees had carried all before it and drowned out that of economic cooperation completely.

Following the devastating effects of hyper-inflation in Germany, however, the principles clearly established in 1922 once more made themselves heard. The first to reassert itself was the principle of the independent central bank. In August

<sup>7</sup> The following figures taken from the League of Nations *Memorandum on Currency and Central Banks, 1925*, II, 64-5, indicate the combined effect of the attempts to defend the mark and of internal inflation upon the Reichsbank.

	END OF				
	1919	1920	1921	1922	1923
	(millions of marks)				
Gold	1,089	1,091	995	954	446
Bank balances and credits abroad	664	1,911	6,198	914	274 trillion*
Loans to the government	42,098	61,087	132,330	1,184,464	**
Notes	35,699	68,806	113,641	1,280,098	496 trillion

\* In the German notation a trillion is the third power of a million, that is, a quintillian in the American notation.

\*\* As of November 1923, when the Rentenbank was established, the government's debt to the Reichsbank was 189 trillion marks.

The balance sheet at the end of 1923 is only an extreme example of the effects upon central bank balance sheets of the lack of correspondence between the legal and economic concepts of gold as standard. The grotesque effect of considering a paper mark and a gold mark as identical in law in 1923 is best shown by writing out two figures from this balance sheet in full:

Gold	446,000,000 marks
Notes	496,507,430,220,934,000,000 marks

1923 the Reichsbank informed the government that after the close of the year it would no longer be prepared to extend uncovered credits to the Reich. A plan for a new bank, the Rentenbank, based upon the spontaneous efforts of states, municipalities, and enterprises to issue stable value currencies and obligations, was then drawn up by Dr. Helfferich. Dr. Helfferich proposed a ryemark, but his plan was amended in this and some other respects. In its final form it provided for the issue of notes, expressed nominally in gold, against bonds (Rentenbriefe) secured by a mortgage on German agriculture and industry, but the new bank was actually dependent for its success upon strict limitation of the amount of its notes and credits. Dr. Schacht was made Currency Commissioner with a consultative voice in the cabinet, and on November 12, 1923 the Bank was established. It extended 1,200 million Rentenmarks credit to the government, of which 300 million were reserved to liquidate outstanding treasury bills. On that day Reichsbank loans to the government ceased. The extension of commercial loans by the Rentenbank was made subject to the consent of the Reichsbank, and the principle of an independent central bank was established in Germany.

The second principle to be revived was the settlement of past debts, which in the case of Germany meant the adjustment of reparation to capacity to pay. In May and June 1923 the German government offered to resume payments under the Versailles Treaty, but France and Belgium made the ending of passive resistance a condition of reopening negotiations. On September 26 Germany abandoned passive resistance and in October the French government acquiesced in the plan initiated by the British for the appointment of committees of experts to draw up a new plan of reparation payments taking into account Germany's capacity to pay.<sup>8</sup>

The third principle to be revived was the attraction of foreign resources. This was embodied in the plan of a gold bank, elaborated late in 1923 by Dr. Schacht and put into operation

<sup>8</sup> Wheeler-Bennett and Latimer, *op. cit.*, p. 56.

on a limited scale in April 1924, pending the reorganization of the Reichsbank under the Experts' plan then in preparation.

Finally, gold economy was from the first represented in its extremest form in the establishment of a purely domestic currency, the Rentenmark. The Reichsbank, which on December 31, 1923 had only 467 million marks of gold and a small supply of foreign exchange, had assumed, in the course of the defense of the mark, obligations to foreign countries of 200 million gold marks, and had guaranteed the redemption of dollar treasury bills issued by the Reich in the spring of 1923 amounting to 60 million dollars. As far as gold was concerned it was a matter, in the words of Dr. Schacht, of "beginning again with nothing in hand."

The purely internal stabilization of the German currency was accomplished by three great negatives:

- 1) The refusal of the Reichsbank on November 17, 1923 to accept on deposit emergency currency issued during the inflation because to do so would have meant loss of control over its own note issue.
- 2) The refusal of the Rentenbank in December 1923 to grant credit to the government in excess of 1,200 million Rentenmarks, which forced the government to balance the budget without bank credit.
- 3) The refusal of the Reichsbank in April 1924 to grant further credits in response to an almost universal demand for working capital which threatened to provoke a new inflation.<sup>9</sup>

The program of external stabilization of the German currency was, first, to fix the official dollar exchange quotation of the Reichsbank on the Berlin Bourse at 4.2 billion<sup>10</sup> marks per dollar, to restrict the foreign exchange allotted at that rate to the smallest proportions, at times only 1 per cent of the amount applied for, and to force short sellers of marks

<sup>9</sup> Schacht, *op. cit.*, pp. 151 and 157-61; cf. also Madden and Nadler, *International Money Markets* (Prentice-Hall, 1935), p. 381.

<sup>10</sup> One billion in the German notation is one trillion in the American notation.

to bring foreign exchange to the Reichsbank as the only source of marks with which to cover their commitments. The second step was to exchange one Rentenmark for a billion<sup>10</sup> old marks. The adoption of these ratios between Rentenmarks, Reichsmarks, and dollars was purely arbitrary. They were maintained by stopping the supply of marks at the source—government deficits and bank credits to agriculture and industry—and by pegging the exchange. Success was assured when, in June 1924 for the first time since 1914, the Reichsbank was able to allot in full all applications for foreign exchange.

The stabilization of the German currency had one serious defect: it could not supply working capital for banks, industry, and agriculture. This defect would probably have proved fatal to the purely internal stabilization had it not been temporarily remedied by the attraction of foreign resources on a large scale following the adoption of the Dawes Plan.

The Dawes Plan<sup>11</sup> built upon these foundations. In it the contending themes of the four preceding years seemed to blend. The dominant note was, in the end, intelligent international financial cooperation. Yet to the attentive ear the note of conflict was still ominously present in the background.

### *The Technical Heritage of the Dawes Plan*

We do not intend to add to the already voluminous literature concerning the Dawes Plan; we wish merely to stress certain of its features that were of great technical importance in subsequent gold standard history:

1) The desire of the creditor powers to ensure against a recurrence of inflation in Germany fatal to the collection and transfer of reparation payments resulted in extreme care being taken in the statutes of the Reichsbank, as reorganized under the Dawes Plan, to guarantee its independence of the Reich. This was expressed in the limitation of loans to the

<sup>11</sup> The Plan was published on April 11, and ratified on August 16, 1924. The Dawes loan was issued in October 1924.

Reich to 300 million reichsmarks (100 million to the government and 200 million to the Post Office), and the provision that once each year the government should be out of debt to the Reichsbank. It resulted also in a limitation of the amount of treasury bills that the Reichsbank could purchase to 400 million reichsmarks and in the exclusion of treasury bills from the note cover. This had the effect of greatly reducing the power of the Reichsbank to carry out open market operations, though the existence of the Gold Discount Bank as a department of the Reichsbank provided some supplementary open market powers. It also limited the freedom of the government in meeting its requirements in emergency situations.

2) The desire of the creditor powers to place the collection and transfer of reparation upon a firm monetary basis was dominant in the making of those sections of the Bank Law of 1924 and of the statutes of the Reichsbank that bound the German mark to gold. They became an integral part of the obligations set forth in the whole reparation settlement. The element of foreign control in the management of the Reichsbank provided in the Dawes Plan was especially concerned with them. As long as Germany was bound by the Dawes Plan it was bound to gold. This principle carried forward in the Young Plan had far-reaching consequences in 1931.<sup>12</sup>

In contrast, the primary purpose of the Gold Discount Bank, established in 1924, and later, under the Dawes Plan, taken over by the Reichsbank, had been to attract foreign resources to Germany, and according to Dr. Schacht, to provide a means whereby even if the Dawes Plan failed, Germany could return to gold. The Gold Discount Bank, however, was based on sterling. Its capital was expressed in sterling and was paid in in various foreign currencies, chiefly sterling and dollars. It had the right to issue notes in sterling. It was expected to provide foreign credits for financing German trade and also to make domestic discounts. Though called a gold

<sup>12</sup> Cf. Ch. 25, *The Gold and Foreign Exchange Reserves of the Reichsbank during the Period of Chronic Emergency, March 1930 to May 1931.*

bank, it did not commit Germany irrevocably to gold and could have been used to bind the mark to sterling had that course been deemed wise. This freedom was lost when the reparation settlement and the return to gold became part of a single plan under the guidance of the Experts.

3) The provisions of the Bank Law of October 1924 placed Germany on a de facto gold exchange standard by permitting the redemption of Reichsbank notes in gold or gold exchange, but the relatively small proportion of foreign exchange permitted as reserve against notes clearly indicated that the gold exchange standard features were expected to play in time a relatively minor role, and that Germany would become a gold standard country.

4) The separation of the functions of the collection of reparation within Germany and the transfer of reparation, when taken together with the machinery of the prosperity index, established a clear political motive on the part of Germany to postpone any further reparation crisis until such time as the movement of the prosperity index should place upon the shoulders of the Agent-General for Reparation Payments, rather than upon the German government, the responsibility for suspending transfers. This was important in the internal program of taxation and in the German attitude toward the Young Plan.

5) The attraction of foreign resources to Germany was a prerequisite of success for the whole settlement. The Dawes Loan of 800 million gold marks placed the balance sheet of the Reichsbank once more upon a firm basis and solved the transfer problem for the first year. It did for the Reichsbank what the flood of foreign credits attracted into Germany did for the whole country during the succeeding four years.

The Dawes Plan prolonged the period of foreign control over the German economy in the interest of the political creditors of Germany with all the dangers inseparable from such an arrangement; it opened the world's capital markets to Germany and thereby postponed for some years all actual



transfers of reparation in the form of goods; it provided Germany with working capital temporarily borrowed from abroad; it established a de facto gold exchange standard system never intended to be permanent, and inextricably bound together Germany's adherence to the gold standard and the whole reparation problem. These consequences of the Plan, at a time when the world's international credit and banking system was undergoing profound changes, give it a central position in the post-war history of the international gold standard.

#### The Sterling-Dollar Exchange, August 1924 to April 1925

Not until the middle of October 1924 did the final rise of the pound in New York to the old parity begin. The British capital that had taken refuge in America late in 1923 was not easily tempted back, and in March 1924 the pound was weakened by a renewed flight of capital to America from France. Neither the submission of the Dawes Report in April nor the establishment of the London-New York differential interest rate in July was sufficient by itself to initiate a prolonged rise in sterling. Even the ratification of the London Protocol on August 20 did not lead to a rapid improvement, for it was followed by substantial French and German purchases of dollars. The signal for a change was the successful flotation of the Dawes Loan in October. Sterling, which then stood at about 4.49, approximately its August level, began to rise steadily. Because this improvement took place while prices were rising in both England and America, but more rapidly in England than in America, it resulted in an overvaluation of sterling. This contributed to, though it did not wholly account for, an unusually large adverse balance in British merchandise trade during the last stages of the return to gold and left as a legacy a serious problem of price adjustment after the return. The improvement in sterling also had the effect of weakening the motives that had led to the continuous shipment of gold to America ever since 1920. Thus the improve-

ment of sterling encountered and even generated serious obstacles, but these were fully offset by two great consequences of the success of the Dawes Loan—the return on a large scale of British and European balances and capital temporarily employed in America, and the resumption of American foreign lending. One serious setback was encountered in January 1925, which afforded still another example of the peculiar difficulties of sterling as a channel of remittance in a world of divided financial strength. Sterling was depressed both by the financing through London of certain gold exports from America and by yet another movement of capital from France, but a visit by Governor Norman to New York, in conjunction with the approaching date of the British Budget speech in April when some action on the currency question had to be taken, finally led the speculative community to conclude that the return to the old parity was not only certain but imminent. With the help of a new demand from speculative sources sterling resumed its rise, and on April 28, 1925 again stood at 4.84, the gold export point to America.<sup>13</sup>

### The End of the Regular Pattern of Gold Distribution

In the summer of 1924 the regular pattern of gold distribution, by which newly mined South African gold was divided in London between Indian and American demand (cf. Ch. 10), ceased to dominate the world's gold markets. The rise of sterling in New York gradually reduced the 'premium' on gold in London expressed by the difference between the buying price of the Bank of England and the New York parity price, and when this became very small and finally disappeared altogether, the demand of countries stabilized in terms of sterling once more became competitive with the American demand. Even before the gold 'premium' had disappeared the Australian pound rose sufficiently in London to permit gold shipments from America to Australia as a pure

<sup>13</sup> For a detailed account of the influences playing upon the sterling-dollar exchange during these months, cf. Brown, *op. cit.*, pp. 209-27.

arbitrage transaction, for in January 1925 the Australian pound was quoted at a  $3\frac{1}{2}$  per cent premium over the pound sterling while sterling in New York was only  $1\frac{1}{2}$  per cent below 'par.' This situation led to great pressure from Australia, as a gold producing country, upon Great Britain for an early return to gold. The decline of the 'gold premium' while the London-Johannesburg exchange was still pegged, also ended the advantages accruing to the South African gold mines from the marketing arrangements described in Chapter 9. It became profitable in January 1925 for them to deposit their output with the Reserve Bank of South Africa in exchange for South African pounds, and South African gold shipments to London were temporarily suspended until a new system of marketing in which the South African Reserve Bank played a major part was developed (cf. Ch. 19). In addition, the approaching disappearance of the gold 'premium,' while the sterling-rupee exchange was pegged at 1 s. 6 d., promised to end the era of a fluctuating price of gold in rupees and thereby to diminish its attractiveness as a medium of speculation. In India, however, agitation for the restoration of the pre-war sixteen penny rupee was active, and as long as success could be hoped for there was a speculative inducement to accumulate gold supplies in India. Gold bought at a fixed price in London with rupees at 1 s. 6 d. might later be sold in a market in which a higher rupee price based on a fixed price of gold in London and a 1 s. 4 d. rupee prevailed. This speculative situation resulted in a great Indian demand for gold which, with the rise of sterling, could be satisfied in New York. Gold therefore left New York for India early in 1925 (cf. Ch. 23).

While these special causes were reversing the established pattern of the flow of gold and directing it from America to Australia, South Africa, and India, general arbitrage transactions were becoming more frequent. The stabilization of many currencies in terms of the dollar meant that the bids

of an increasing number of countries for gold, based upon the legally defined buying prices of mints and central banks and the current rates of exchange, became potentially and even actually effective competitors with the American bid in London, and brought them close to the point of constituting an effective demand for gold at the American mint price of \$20.6771 per fine ounce. Through the summer and autumn of 1924 gold was earmarked at the Federal Reserve banks and shipments were made from the United States to Sweden and in December to Germany. America ceased to be the residual buyer of the world's exportable gold, and in December 1924 became a net exporter.

### American Financial Policy in Relation to the Final Steps in the Return to Gold

#### *Discount and Open Market Policy*

Coincident with the turning of the gold movement away from the United States American credit control policy entered a new phase. The Federal Reserve banks in November 1924 began to sell government securities in order to restrain over-expansion in business which seemed to be threatening after the rapid recovery from the stagnation of the summer, to check the rapid increase in commodity prices and speculative tendencies engendered by the previous extreme ease of money, and to make the discount rate effective.<sup>14</sup> Between November 1924 and April 1925, \$260 million in government securities were sold, and in February the discount rate was increased from 3 to 3½ per cent. The effect of this mildly restrictive policy upon the credit base and the credit superstructure in America is shown in Table 34. The open market operation apparently did not fully shift the portfolio of the Reserve banks from the open market to the discount shoulder, as bills discounted increased only \$125 million while government securities declined \$219 million. The restrictive effects of se-

<sup>14</sup> These are the reasons given in Beckhart, *op. cit.*, III, 96.

TABLE 34

*American Credit Base and Credit Superstructure  
Factors of Change*

## THE CREDIT BASE

TRANSACTION (millions of dollars)	EFFECT ON MEMBER BANK RESERVE ACCOUNTS	
Decrease in Gold Coin and Bullion in the U.S. (gold exports, 133 million)		-142 <sup>1</sup>
Decrease in Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks (partly estimated)	+43	
Decrease in Cash in Vault of All Reporting Banks (estimated)	+9	
Decrease in Treasury Currency		-2
Decrease in Government Securities held by the Reserve Banks		-219
Increase in Bills Bought held by the Reserve Banks	+135	
Increase in Bills Discounted at the Reserve Banks	+125	
Decrease in Other Deposits at the Reserve Banks	+20	
Increase in Unexpended Capital Funds of the Reserve Banks		-4
	+332	-367
Decrease in Member Bank Reserve Accounts due to these Items	-35 <sup>1</sup>	
Actual Decrease in Member Bank Reserve Accounts	-49	

<sup>1</sup> Cf. Table 22, note 2.<sup>2</sup> Cf. Table 25, note 3.<sup>3</sup> This item has been increased \$75 million to allow for the effect of the retirement of that amount of bonds carrying the circulation privilege which was offset by a reduction in the banks' liability for National Bank Notes outstanding, rather than by a reduction in their Deposits (adj.).

curity sales and gold exports were largely offset by aid given the market through an increase of \$135 million in 'bills bought.' Member bank balances declined moderately, but the credit superstructure was not contracted by the combined gold outflow and credit restriction. On the contrary, it continued to grow. 'Deposits (adjusted)' of all reporting banks increased \$1,794 million from October 1924 to April 1925. 'Loans and investments (adjusted)' increased over a billion

TABLE 34

*October 10, 1924–April 6, 1925, a Period during which the Federal Reserve System was actively selling Government Securities*

## THE CREDIT SUPERSTRUCTURE

TRANSACTION <sup>2</sup> (millions of dollars)	EFFECT ON DEPOSITS (EXCL. INTERBANK DEPOSITS) OF ALL BANKS REPORTING TO THE COMPTROLLER	
Decrease in Gold Coin and Bullion in the U.S. (gold exports, 133 million)		-142
Decrease in Money in Circulation outside the Reserve Banks, the Treasury, and All Reporting Banks (partly estimated)	+43	
Decrease in Treasury Currency		-2
Increase in Commercial Bank Float (Member Banks only)	+128	
Increase in Loans plus Investments (adj.) of All Reporting Banks	+1,558 <sup>3</sup>	
Decrease in Government Securities held by the Reserve Banks		-219
Increase in Bills Bought held by the Reserve Banks	+135	
Increase in Real Estate owned by All Reporting Banks ( $\frac{1}{2}$ of increase June 1924-June 1925)	+72	
Increase in Capital Funds of All Reporting Banks ( $\frac{1}{2}$ of increase June 1924-June 1925)		-180
Increase in Deposits (adj.) of All Reporting Banks due to these Items	+1,936	-543
Actual Increase in Deposits (adj.) of All Reporting Banks	+1,393 <sup>4</sup>	
	+1,794	

<sup>4</sup> Cf. Table 25, note 1. There was probably an important decrease in foreign balances due to the return flow of capital to foreign countries during this period. This would account for a substantial part of the difference between the calculated and the actual figure for Deposits (adj.).

and a half dollars, but this increase is far short of the amount necessary to account for the growth in deposits. The factors of change shown in Table 34 account for an increase in deposits (adjusted) of only \$1,393 million, and the difference is to be attributed largely to the effects of the return of capital to Europe, for which no satisfactory estimate is available.

During the final steps in the return to gold, therefore, the striking contrast between the expansion of the credit superstructure in America and the stability of the credit super-

structure in Great Britain, described in Chapter 10, was still in evidence.

### *Revival of American Foreign Lending*

The capacity of the American market to absorb new capital issues was clearly not being impaired by gold losses and credit restriction, and with the confidence inspired by the successful flotation of the Dawes Loan the flood-gates of American credit were opened to foreigners. During the six months between that event and Great Britain's return to gold over half a billion dollars of European loans were placed in the United States. Like the loans placed in America during the war to support the sterling-dollar-franc foreign exchange nucleus, these loans contributed to a successful restoration of a system of stable exchange rates, but did not have the true time-bridging characteristics of pre-war capital exports. To a large extent they built up deposits in the borrowing countries without any certain prospect that these deposits would subsequently be replaced by the proceeds of exports from the borrowing countries. They did not wholly represent a transfer of deposits from genuine savings in the lending country, for the abundant capacity of the American market to absorb them was largely the result of a long-continued expansion of the credit superstructure (cf. Ch. 6).

### The End of the British Campaign for Parity with Gold

All the elements that formed the setting in which the final steps in her return to gold were taken by England have now found a place in our discussion. The account of these final steps can, therefore, be brief.

The German stabilization and the improvement of sterling in New York that followed the placing of the Dawes Loan strengthened every motive leading to early and definite action by England. In addition, a powerful psychological motive was present in the expiry date, December 31, 1925, of the

Gold and Silver (Export Control) Act under which Bank of England gold reserves were protected from export demand. The government had to declare officially before that date whether it would or would not extend the life of the Act, and give reasons for its decision. The budget speech of April 1925 was the last before the Act expired and had to contain some statement concerning it. Every consideration of prestige was against an official declaration to the effect that the return to gold would be further postponed. The summer and fall of 1924 and the first quarter of 1925 were consequently months of quiet preparation for the historic announcement in April 1925 of the establishment in England of a free gold market without change in the gold content of the sovereign but also without a restoration of gold to domestic circulation.

*Report of the Committee on the Currency and Bank of England Note Issues, February 1925*

The policy governing this important step was laid down in the report of a small committee appointed in June 1924, ostensibly to consider whether the time had come to amalgamate the Currency and Bank of England Note issues as recommended by the Cunliffe Committee. This Committee's report was submitted on February 5, 1925, shortly after the Governor of the Bank of England returned from his visit to New York and after the Committee had twice requested him to give evidence before it. Its main features were:

- 1) The alternatives to a return to gold—devaluation and a managed currency—were excluded from practical consideration (Sec. 6-8).
- 2) The British international financial position was sufficiently strong to allow the reestablishment of a free gold market *provided that the internal purchasing power of the pound were adjusted by credit control to its exchange parity and foreign investments were restricted to England's normal export surplus* (Sec. 10-13).
- 3) The mere announcement that the Gold and Silver (Export



Control) Act would not be extended would bring about the necessary credit conditions to effect these ends (Sec. 14).

4) The actual improvement in sterling in New York during the Committee's deliberations had overvalued the pound and therefore a period of credit contraction and deflation would be necessary if the pound were not to fall again in New York. It would be undesirable to allow the pound to fall again only to have to raise it once more in harmony with the fundamental decision not to devalue (Sec. 15-20).

5) The attitude of the Dominions and other countries might lead them to return to gold before England (Sec. 21).

6) Conditions in America were favorable for a cooperative policy there (Sec. 22).

7) The return to the gold standard should be immediately announced, the Gold and Silver (Export Control) Act should be allowed to expire, and a license to export gold sold by the Bank of England when the exchanges were below gold export point should be granted (Sec. 23).

8) The Bank of England should replenish its reserves by *traditional methods* (Sec. 24).

9) Foreign credits were not necessary, but would aid confidence, especially in view of the speculative elements contributing to the actual improvement in the sterling rate. Such credits should not be used until substantial use had been made of the gold reserve, and drafts on those credits should be treated, from the point of view of monetary policy, as equivalent to losses in Bank of England reserves (Sec. 24-31).

10) A temporary increase in money rates in England would probably be necessary, but the disadvantages to British trade would be less than those inherent in any alternative program (Sec. 32-34).

11) The return to gold would provide the best means of preventing overlending, for its results would be expressed in a loss of gold (Sec. 34-36).

12) The transfer of the Currency Note issue should be based on experience with the operation of the gold standard, and be carried out probably by 1928 (Sec. 37-40 and 50).

13) Circulation of gold coins was a luxury, not essential to the operation of the gold standard, and should be prevented by the

practice of the banks, and if this were not sufficient, by legislation (Sec. 43).

In these recommendations the principles laid down at the beginning of the long Restoration period—a return to a free gold market at the old par and its maintenance by a return to normal techniques—were once more reaffirmed (cf. Ch. 9). Both the government and the Bank of England were faithful to the letter and spirit of this report, yet its conservative ring concealed the importance of changes that had actually taken place in practice and theory. These changes lay in the interpretation given to the phrase ‘traditional methods’ and in the abandonment of gold as hand-to-hand money.

*British Financial Policy in preparation for the Return to Gold*

The interpretation of the mandate to protect Bank of England reserves by traditional means was in actual practice broad enough to leave room for a compromise between pre-war practice and the new relationships that had become established in the money market. The nature of these compromises is well exemplified in the steps taken in immediate preparation for the return to gold.

The statistics of British banking continued to exhibit during the last six months of 1924 and the first quarter of 1925 the stability attained in 1922. The restraint laid upon the growth of bankers balances at the Bank of England by the Bank’s policy of credit control during these months can be read on the face of the Bank of England figures (Chart 14). During the greater part of 1925 ‘discounts and advances’ at the Bank of England were increasing, but this was not allowed to increase ‘bankers balances’ and was offset by a reduction in ‘government securities’ (Chart 14). The reserve of the Banking Department was stable during 1924, but in the first quarter of 1925 began to grow substantially. This also was not allowed to express itself in ‘bankers balances,’ but was more than offset by reductions in ‘discounts and advances’

and in 'government securities' after the year-end requirements had been met. Throughout 1924, therefore, 'bankers balances' were maintained at the same level and with the same seasonal fluctuations as in 1923. In the first quarter of 1925 they were slightly higher and the usual seasonal characteristics of 1922-29 were not present, chiefly owing to an unusual decline in February 1925 in 'government deposits.' Nevertheless, there was no indication of any substantial relaxation of pressure. The increase in the level of 'bankers balances' was small and formed no part of a rising trend.

The joint stock bank figures were extremely stable. 'Advances' throughout the period were growing but 'investments' were declining. Otherwise the general level and seasonal fluctuations of all the items were those established in 1922. 'Cash and at the Bank of England' was steady, even slightly declining, and 'total deposits' were stationary except for seasonal movements. The ratios of 'cash and at the Bank of England,' 'discounts,' and 'loans and investments' to 'total deposits' were all very stable. The ratio of 'advances' to 'total deposits' was closely approaching the range of 50-55 per cent, and that of 'investments' to 'total deposits' was approaching the range of 15-20 per cent, characteristic of the decade before the war (Charts 46 and 47). Stability in the credit superstructure and the credit base continued to be the outstanding feature of domestic banking policy in Great Britain.

While maintaining this internal stability, the Bank of England took a series of measures designed to strengthen the foreign exchange position. In November an embargo on the placement of new foreign loans in London was quietly established by means of the sanctions already described. It was left in force for a full year and was very effective. Total overseas loans in 1925 were only £87 million as compared with £134 million in 1924, and nearly half of the year's total was issued after the embargo was lifted. While the embargo was in effect, no loans were placed for foreign governments, and only negligible amounts for foreign corporations, municipalities, and colonial railways.

In January 1925 negotiations were begun to secure American credits to help in the defense of the pound after the return to gold. These credits have an outstanding place in the long line of such stabilization credits after the war both because of the dramatic way in which they exemplified the new position of the pound as a world currency and because of their technical characteristics. Arrangements were made for the extension by a banking group, headed by J. P. Morgan and Company, to the British Treasury of a credit of \$100 million, and for the sale by the Federal Reserve banks of up to \$200 million in gold to the Bank of England under agreement for its repurchase within two years. The purpose of these credits was to provide dollar exchange in support of sterling if needed, but to make this possible without interfering with any given money market policy being pursued by the Bank of England or the Federal Reserve banks at the time the credits were used.<sup>15</sup>

<sup>15</sup> The flexibility of these arrangements is stressed in the following statement by the writer in *England and the New Gold Standard, 1919-1926* (pp. 232-3): "The arrangement (between the Federal Reserve Bank of New York and the Bank of England) did in fact provide a means whereby the financial effects of a future shipment of gold could be obtained in the present, for the obligation assumed by the Bank of England was to provide gold in the future in return for gold supplied in the present by the Federal Reserve System. Now the financial effects of an export of gold from England to America are primarily to provide dollar exchange, and secondarily to reduce the amount of reserve funds in England and increase them in America. The arrangement between the two banks made it possible to secure these results as follows: gold would be sold by the Federal Reserve Bank to the Bank of England against a deposit credit on the latter's books. This gold would be taken from the reserve of the Federal Reserve Bank and held at the disposal of the Bank of England. It could be used by the Bank of England in one of three ways which Governor Strong lists as follows:

1. It may be exported at the direction of the Bank of England.
2. It may be earmarked, taken out of the reserve of the Federal Reserve Bank and held for safekeeping for account of the Bank of England, thereupon no longer forming a part of the assets of the Federal Reserve Bank but becoming an asset of the Bank of England as gold held abroad.
3. It may be used for the purpose of making payments in the United States.

Bearing in mind that the main purpose of the whole arrangement was to defend the pound sterling, the third alternative use would be the most likely one. If, for example, the Bank of England had sold a cable against the gold

In February 1925 the Bank of England took vigorous steps to preserve the advantages, from a foreign exchange point of view, of the differential interest rate relationships established between London and New York in July 1924. In October and November 1924 this differential was reduced by rising interest rates in New York. The Federal Reserve banks began to prepare for an increase in discount rates by the sale of securities, and on February 27, 1925 the Federal Reserve Bank of New York raised its rate to  $3\frac{1}{2}$  per cent. This action was taken immediately after the regular weekly meeting of the Court of the Bank of England, and the Bank's response to it was unusual. It intimated to the market that it would not in the future lend to the market at less than  $5\frac{1}{2}$  per cent, or discount below 5 per cent. The result was an increase in the open market rate of 1 per cent. The differential between London and New York was reestablished and at the next meeting of the Court, March 5, Bank rate was raised to 5 per cent (Charts 25 and 48).

thus secured in New York to support sterling, the bank to whom it made payment would receive gold or, in practice, Federal Reserve funds secured by the Bank of England in exchange for its gold. In this way the *total* reserve funds in America would be increased just as if gold had been imported, but instead of actually having additional gold against increased deposit liability, the Federal Reserve System would have the obligation of the Bank of England (guaranteed by the British Government) to provide it with gold in, say, two years. In the meanwhile, in London the cable transfer on New York sold by the Bank of England would have to be paid for ultimately by Bank of England funds, and would have, therefore, the same deflationary effect in London as if gold had actually been withdrawn from the Bank. This deflationary effect in London could be offset, and the inflationary effect in America preserved, however, if the deposit credit created in favour of the Federal Reserve Bank on the books of the Bank of England were at the same time invested in bills in the London market, thus putting Bank of England funds into the market. When at a later and more convenient date gold was actually shipped by the Bank of England, it would have *no* money market effects except those resulting from the sale of bills held for the Federal Reserve Bank in London.

The alternative use of the Government credit with the J. P. Morgan group provided another means of creating dollar exchange, in this case without affecting the reserve accounts of member banks in New York."

*The Gold Standard Act of 1925*

With the ground thus carefully prepared the British government acted. In his budget speech of April 28 the Chancellor of the Exchequer, Winston Churchill, announced that the Gold and Silver (Export Control) Act would not be renewed on December 31, 1925, and that a general license would be granted to the Bank of England to deliver gold for export against legal tender. The concentration of all the gold in the country at the Bank of England was completed by the transfer of £27 million in gold from the Currency Note Reserve Account to the Bank in exchange for Bank of England Notes.<sup>16</sup> On May 13 the Gold Standard Act of 1925 was passed, placing the Bank of England under obligation to sell gold bullion in amounts of not less than 400 fine ounces in exchange for legal tender at 77 s. 10½ d. per standard ounce, and providing that notes were to be converted into coin only at the option of the Bank of England, unless otherwise provided by proclamation, and that the right of bringing bullion to the mint for coinage should be restricted to the Bank of England. The statutory obligation of the Bank to buy all gold offered at 77 s. 9 d. per standard ounce remained in effect under Section IV of the Peel Act which had been untouched by all the developments of the preceding decade.

The quiet dropping of gold from circulation passed almost without comment but the change in attitude that this revealed from that prevailing from 1914 to 1920 was very striking. During the war it was assumed in England that the gold standard was maintained because convertibility was maintained even though export was impossible. In 1925 it was officially proclaimed that the gold standard was restored if export was possible, even though the right of conversion was restricted to this one purpose. This view was shared by European countries in general. When the Netherlands, for ex-

<sup>16</sup> Cf. Ch. 19, *The Final Legal Form of the English Gold Bullion Standard*.

ample, followed Great Britain back to the gold standard, gold could be obtained from the Bank of the Netherlands only if it could be shown that the state of the exchanges justified gold exports. So accustomed, indeed, did countries, other than the United States, become to the gold bullion standard that the American emphasis upon domestic convertibility of the currency became an actual impediment to the understanding of American problems by Europeans. For to Americans the most striking feature of the gold bullion standard was that foreigners were allowed to take gold while this right was denied to American citizens, whereas to Europeans its most striking feature was that it secured all the benefits of the 'full' gold standard and at the same time economized gold.