per cent were nonmembers. (4) The relatively few large member banks that failed at the end of 1930 were regarded by many Reserve officials as unfortunate cases of bad management and therefore not subject to correction by central bank action.1

In September 1931, when Governor Harrison convened a meeting of commercial bankers to discuss means of making deposits in closed banks available, he recalled that "at one time it was the feeling of many of us downtown that the effects of the failure of... small banks in the community could be isolated," but "it was clear that the continued closing of institutions in the city is now having serious repercussions... ." 2

4. International Character of the Contraction

In 1929, most countries of the Western world had returned to a monetary standard involving fixed exchange rates between different national currencies. The standard was widely known as the gold-exchange standard because many countries kept their monetary reserves in the form of balances of other currencies convertible into gold at fixed prices, notably sterling and dollars, rather than in the form of gold itself. Official agencies in such countries, usually the central banks, often fixed exchange rates directly by standing ready to buy or sell the national currency at fixed rates in terms of other currencies, rather than indirectly by standing ready to buy or sell gold at fixed prices in terms of the national currency.

Since the gold-exchange standard, like the gold standard, involved fixed exchange rates, it also meant that, so long as the standard was maintained, prices and incomes in different countries were intimately connected. They had to behave so as to preserve a rough equilibrium in the balance of payments among the countries. The use of the gold-exchange standard did mean, however, that there was less leeway in the adjustments among countries—the rough equilibrium could not be quite so rough as under the full gold standard. The gold-exchange standard rendered the international financial system more vulnerable to disturbances for the same reason that the rise in the deposit-reserve ratio rendered the domestic monetary system more vulnerable: because it raised the ratio of claims on the relevant high-powered money—in this case, ultimately, gold—to the amount of high-powered money available to meet those claims.

The links forged by the fixed rates of exchange ensured a worldwide decline in income and prices after 1929, just as the links forged by the less rigidly fixed exchange rates in 1920 ensured a worldwide decline then. No major contraction involving a substantial fall in prices could develop in any one country without those links enforcing its trans-

"We are indebted to Clark Warburton for this paragraph.

1 Harrison, Office, Vol. II, Sept. 11, 1931.
mission and spread to other countries. There was sufficient play in the links to permit minor uncoordinated movements but not to permit major ones.

As in 1920, the worldwide scope of the contraction once it got under way does not mean that it did not originate in the United States. Even since World War I at the latest, the United States has been a sufficiently important participant in world trade and in world capital and financial markets and has held a sufficiently large fraction of the world gold stock to be capable of initiating worldwide movements and not merely of reacting to them. Of course, if it did initiate a worldwide disturbance, it would inevitably be affected in turn by other influences from the rest of the world.

We saw in Chapter 5 that there is good reason to regard the 1920-21 contraction as having been initiated primarily in the United States. The initial step—the sharp rise in discount rates in January 1920—was indeed a consequence of the prior gold outflow, but that in turn reflected the United States inflation in 1919. The rise in discount rates produced a reversal of the gold movement in May. The second step—the rise in discount rates in June 1920 to the highest level in Federal Reserve history before or since—was a deliberate act of policy involving a reaction stronger than was needed, since a gold inflow had already begun. It was succeeded by a heavy gold inflow, proof positive that the other countries were being forced to adapt to United States action in order to check their loss of gold, rather than the reverse.

The situation in 1929 was not dissimilar. Again, the initial climactic event—the stock market crash—occurred in the United States. The series of developments which started the stock of money on its accelerated downward course in late 1930 was again predominantly domestic in origin. It would be difficult indeed to attribute the sequence of bank failures to any major current influence from abroad. And again, the clinching evidence that the United States was in the van of the movement and not a follower is the flow of gold. If declines elsewhere were being transmitted to the United States, the transmission mechanism would be a balance of payments deficit in the United States as a result of a decline in prices and incomes elsewhere relative to prices and incomes in the United States. That decline would lead to a gold outflow from the United States which, in turn, would tend—if the United States followed gold-standard rules—to lower the stock of money and thereby income and prices in the United States. However, the U.S. gold stock rose during the first two years of the contraction and did not decline, demonstrating as in 1920 that other countries were being forced to adapt to our monetary policies rather than the reverse.

The international effects were severe and the transmission rapid.
not only because the gold-exchange standard had rendered the international financial system more vulnerable to disturbances, but also because the United States did not follow gold-standard rules. We did not permit the inflow of gold to expand the U.S. money stock. We not only sterilized it, we went much further. Our money stock moved perversely, going down as the gold stock went up. In August 1929, our money stock was 10.6 times our gold stock; by August 1931, it was 8.3 times the gold stock. The result was that other countries not only had to bear the whole burden of adjustment but also were faced with continued additional disturbances in the same direction, to which they had to adjust. As Harrison noted in early 1931, foreign commentators were particularly critical of the monetary policy of the United States because

the gold as it came into the country has been used by member banks to repay Federal reserve credit in one form or another, with the result that in this period the total volume of Federal reserve credit had declined by an amount equal to the gold imports. Thus it may be said that the United States has prevented the usual or normal effect of gold which has come to it. . . . The evils to the world of continued gold sterilization . . . are so great as to make desirable a careful scrutiny of Federal reserve open market policy."

The effects first became severe in those countries that had returned to gold with the smallest actual gold reserves, and whose financial structures had been most seriously weakened by World War I—Austria, Germany, Hungary, and Rumania. To shore up the financial systems of those countries, international loans, in which the Reserve System participated, were arranged. But so long as either the basic pressure on those countries deriving from deflation in the United States was not relieved, or the fixed exchange-rate link which bound them to the U.S. dollar was not severed, such assistance was at best a temporary palliative. In country after country, that is what it proved to be. As they experienced financial difficulties, the United States, as we have seen, was in turn affected by the reflex influence of the events it had set in train.

The key role of fixed exchange rates in the international transmission mechanism is cogently illustrated by the case of China. China was on a silver rather than a gold standard. As a result, it had the equivalent of a floating exchange rate with respect to gold-standard countries. A decline in the gold price of silver had the same effect as a depreciation in the foreign exchange value of the Chinese yuan. The effect was to insulate Chinese internal economic conditions from the worldwide depression. As world prices fell in terms of gold, so did the gold price of silver. Hence, the prices of goods in terms of silver could remain approximately the same. China could continue to maintain external balance without undergoing an internal deflation. And that is what happened. From 1929

"Harrison, Open Market, Vol. II, Apr. 27, 1931."
to 1931, China was hardly affected internally by the holocaust that was sweeping the gold-standard world. Just as in 1920-21, Germany had been insulated by her hyperinflation and associated floating exchange rate. The first major country to cut the link was Britain, when she left the gold standard in 1931. The trough of the depression in Britain and in other countries that accompanied Britain in leaving gold was reached in the third quarter of 1932. In the countries that remained on the gold standard or, like Canada, that went only part way with Britain, the depression dragged on. In China, whose currency appreciated relative to the pound as a result of the sharp depreciation of the pound relative to gold, the depression set in for the first time in 1931.

Of course, the country in the vanguard of such an international movement need not stay there. France, which had accumulated a large stock of gold as a result of returning to the gold standard in 1928 at an exchange rate that undervalued the franc, and therefore had much leeway, at some point passed the United States and not only began to add to its gold stock but also, after late 1931, to drain gold from the United States. The link between the franc and the dollar was cut when the United States suspended gold payments in March 1933, which proved to be the business cycle trough for the United States and countries closely linked to it. In France, which stayed on gold for a further interval, the contraction dragged on still longer. Although there was an upturn from July 1932 to July 1933, the low point of the interwar years was not reached until April 1935.

5. Development of Monetary Policy

The course of monetary policy in the difficult and critical years of the contraction was greatly influenced by the struggle for power within the Federal Reserve System, the beginnings of which were described in the preceding chapter. At the time of the stock market crash, the New York Reserve Bank acted in the tradition of its earlier dominance, moving rapidly, decisively, and on its own. The adverse reaction of the Board greatly inhibited further independent measures by New York.

In 1930, New York strongly favored expansionary open market operations, but after the middle of the year was unable to persuade either the other Bank governors—all of whom by this time had become members of the reorganized Open Market Policy Conference, which replaced the earlier Open Market Investment Committee—or the Board in Washington. The same was true in 1931, except that New York was less
