The International Gold Standard and U.S. Monetary Policy from World War I to the New Deal

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Before the First World War, most of the world, including the United States, Great Britain, and every country in Europe, maintained gold standard. In the United States, the Resumption Act had restored the gold standard in 1879, and the Gold Standard Act of 1900 had established gold as the ultimate standard of value. Internationally, the gold standard committed the United States to maintain a fixed exchange rate in relation to other countries on the gold standard, a commitment that facilitated the flow of goods and capital among countries. Domestically, the gold standard committed the United States to limit the expansion of money and credit, and thus it restrained inflationary pressures.

The international gold standard did not function ideally, however. Although the gold standard provided a basis for nominal stability over the long run, the U.S. and world economy suffered in the short run through periods of depression and inflation due to changes in the world's supply of and demand for gold. Moreover, the U.S. commitment to the international gold standard had a cost: It confined, though it did not preclude, discretionary management of the domestic economy.

From the First World War to the New Deal, amid upheaval in international and domestic financial markets, the United States honored its commitment to redeem dollars for gold at $20.67 per ounce. Maintenance of the gold standard, however, recurrently interfered with the Federal Reserve's broader objective of stabilizing the domestic economy. During the First World War, the United States and other belligerents fully or partly suspended the gold standard, de jure or de facto, to prevent it from hampering the war effort. In 1920, when the United States alone operated the gold standard without restrictions, the Federal Reserve imposed a severe monetary contraction, which defended the gold standard but contributed greatly to a depression. Hoping to stabilize the world economy in the 1920s, the industrial nations, notably Britain and France, restored the international gold standard. The restoration—which must be judged a failure—compelled the Federal Reserve to make choices between its international and its domestic objectives. Indeed, throughout the 1920s and early 1930s, Federal Reserve policy alternated between management of the international gold standard and management of the domestic economy. With the devaluation of the dollar in 1933, the United States established the principle that domestic policy objectives had primacy over the dictates of the gold standard. (See table 1 for the major events covered in this paper and the insert on page 425 for definitions of terms regarding the gold standard.)

The First World War

The First World War nearly demolished the international gold standard. While none of the countries at war demonetized gold or refused to buy gold at a fixed price, none adhered strictly to the tenets of the gold standard. When the war began, belligerent governments instituted several legal and practical changes in the gold standard, which they viewed as a temporary suspension of the rules rather than as a permanent abandon-

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1. Major events in the history of the international gold standard, 1914–34

Date	Event
August 1914	World War I begins
November 16, 1914	Federal Reserve Banks open
January 13, 1916	Britain pegs the pound at $4.76
April 6, 1917	United States enters the war
November 11, 1918	Armistice declared
1920	Federal Reserve defends the gold standard
January 1923	France and Belgium invade the Ruhr
January 1924	Dawes Plan
April 28, 1925	Britain returns to the gold standard
July 1926	French currency crisis
July 1927	Inter-central-bank agreement
October 23, 1929	U.S. stock market crashes
September 21, 1931	Britain abandons the gold standard
March 6, 1933	Bank holiday; U.S. suspends the gold standard
June–July 1933	World Monetary and Economic Conference convenes
January 30, 1934	Gold Reserve Act passed

ment of the international monetary system. Previous wars had often forced suspension; peace had always brought restoration.

U.S. Response to the 1914 Crisis

Although the United States did not enter the war until 1917, the outbreak of war in Europe in 1914 immediately disrupted U.S. financial and commodity markets, the latter being heavily dependent on London for the financing of exports. In July 1914, U.S. firms had a large amount of short-term debts payable in Europe, primarily in London; but this position was normal in the summer, as borrowers expected to use the proceeds from exports of cotton and grain to pay off their liabilities in the fall. As Europe moved toward war, the world's financial markets became highly disorganized, especially after acceptance and discount houses in London shut down their operations. Late in July, as foreigners began liquidating their holdings of U.S securities and as U.S. debtors scrambled to meet their obligations to pay in sterling, the dollar–pound exchange rate soared as high as $6.75, far above the parity of $4.8665. Large quantities of gold began to flow out of the United States as the premium on sterling made exports of gold highly profitable. Under the pressure of heavy foreign selling, stock prices fell sharply in New York. The banking and financial systems in the United States seemed on the verge of collapse.

Relief came without the suspension of the gold standard in the United States. On July 31, the New York Stock Exchange joined the world's other major exchanges in closing its doors, thus easing pressure on the gold standard by preventing the export of gold arising from foreign sales of U.S. corporate securities. In August, unsafe shipping conditions and the unavailability of insurance further slowed gold exports. Still, with the export sector in disarray and with $500 million in short-term debts coming due in Europe, the United States needed to implement additional actions to defend the exchange value of the dollar. The most important relief measure came on August 3, when Secretary of the Treasury William McAdoo authorized national and state banks to issue emergency currency by invoking the Aldrich–Vreeland Act. Because it allowed banks to use such notes to meet currency withdrawals and to safeguard reserves, this emergency measure kept panic from sweeping over the banking system. In early September, less than a month after its first members took the oath of office, the Federal Reserve Board, in conjunction with the Secretary of the Treasury, organized a syndicate of banks that subscribed $108 million in gold to pay U.S. indebtedness in Europe. Less than $10 million was actually exported from this gold fund, however, because the organization of the fund itself provided foreign creditors with the assurance they required.

Although the international financial machinery broke down more fundamentally in 1914 than it had in previous crises, the U.S. domestic economy fared surprisingly well. Primarily because the issuance of emergency currency provided liquidity, the volume of loans made by banks was much higher than in past crises. Because banks in the country actually increased their loans outstanding, in contrast to their past practices, the crisis of 1914 did not unduly burden banks in New York. Although interest rates in the United States rose and remained high through the autumn, rates did not soar to the levels reached in past panics. By the time the Federal Reserve Banks opened, on November 16, 1914, the financial crisis in the United States had nearly passed. In November, commercial banks began to retire Aldrich–Vreeland notes. In December, gold began to flow toward the United States, and the

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New York Stock Exchange reopened. By January, with exports surging, the neutral dollar had rebounded to move past parity with the pound.

Attempts to Maintain Exchange Rate Parities during the War

The durability of the international gold standard before the First World War can be traced to a well-founded trust in the stability of the principal reserve currency, the British pound. The preservation of confidence in the gold standard in Great Britain during the war relied on keeping the pound above the gold export point of the principal neutral currency, the U.S. dollar. With Great Britain and all of the other warring nations hungering for commodity imports to feed their economies, gold shipments to the United States helped hold exchange rates near parity during the period of U.S. neutrality. From August 1914 to April 1917, the United States imported a total of $1.12 billion in gold, and the monetary gold stock swelled from $1.57 billion to $2.85 billion. While the British wanted to support the pound and to import war supplies, they realized that gold exports could not satisfy indefinitely these dual objectives without undermining confidence in the pound. From January 13, 1916, to March 19, 1919, J.P. Morgan and Company, acting as agents of the British Treasury, pegged the dollar–pound rate in New York at $4.765.

Gold exports, pegging operations, and large sales of foreign securities partially shielded the fixed structure of the world's exchange rates, but Great Britain and its allies depended on international borrowing as the key weapon in their defense of exchange rate parities. As the war stretched from months into years, an extraordinary network of international lending emerged, which fortified the strained structure of exchange rates. In general, neutrals lent to belligerents. Most important, the United States lent to Britain. As the volume of debt burgeoned, the structure of the debt intertwined: Neutrals lent to neutrals; belligerents lent to their allies. The diversion of war-financing pressures partly sheltered the world exchange rate structure at the cost of contorting the world debt structure. When the

The Gold Standard: Descriptions and Definitions

Fixing the value of a country's monetary unit in terms of a specific weight of gold constituted the essence of the *gold standard*. For example, the United States went back on the gold standard in 1879 by defining a dollar to equal 23.22 fine grains of gold or, equivalently, by setting a price of $20.67 for one troy ounce of gold. Before the First World War, most countries were on a form of the *gold coin standard*. These countries minted gold coins that circulated, along with notes that were fractionally backed by gold reserves, in the payments system as legal tender. To economize on gold reserves after the war, many countries, including Britain but not the United States, stopped circulating gold coins. Instead, these countries instituted a *gold bullion standard*, under which notes could be exchanged for gold bars.

Under the *international gold standard*, currencies that were fixed in terms of gold were, necessarily, tied together by a system of fixed exchange rates. The fixed relative quantity of gold between two currencies in the system was known as the *parity*. The prewar parity between the dollar and the pound sterling was $4.8665 to 1 pound, but the dollar–pound exchange rate could move in either direction away from the parity benchmark by a small amount to the *gold export point*, where it became profitable to ship gold to the country with the stronger currency.

Before the First World War, many central banks held pounds as a reserve asset, and the pound usually served in lieu of gold in international transactions; this system was known as the *sterling exchange standard*. At the Genoa Conference of 1922, all European governments declared the reestablishment of the international gold standard to be their ultimate and common financial objective and, to economize further on gold reserves, resolved to adopt a *gold exchange standard* under which gold-based assets would serve as reserve assets. This goal was achieved by the mid-1920s. However, the extensive holdings of foreign exchange reserves (primarily dollar- and pound-denominated deposit balances) under the gold exchange standard went beyond what the participants at the conference had envisioned. In the ten years before World War I, total foreign exchange reserves in European central banks fluctuated between $250 million and $400 million. In contrast, at the end of 1924, foreign exchange holdings totaled $844 million; at the end of 1928, they were $2.513 billion.

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United States entered the war in April 1917, loans by the U.S. government to its allies replenished the nearly exhausted resources of the private financial markets. From April 1917 to November 1920, U.S. net cash advances to Britain totaled $4.20 billion; to France, $2.97 billion; and to Italy, $1.63 billion. After the war, Britain retained its status as a central creditor nation; but by 1920, British foreign assets had fallen to one-fourth of their 1914 level, while more than $11 billion in capital exports during the war had transformed the United States from a debtor into a creditor nation.

Suspension of the International Gold Standard during the War

To be on the gold standard a country needed to maintain the convertibility between notes and gold and to allow gold to flow freely across its borders. In the early days of the war, Austria–Hungary, France, Germany, and Russia all went off the gold standard as they suspended specie payments and instituted legal or de facto embargoes on the export of gold by private citizens. Like the British Treasury, the governments of these warring countries exported gold and borrowed heavily to finance the war, but these tactics raised only a fraction of the large sums of money that the war required. Because new taxes did not and could not make up the difference, the continental belligerents financed a large share of the war by printing money, which caused prices to soar and complicated the return of these countries to the gold standard after the war. Unlike other belligerents, Britain did not formally suspend specie payments or institute an embargo on gold exports during the war. Several factors, however, effectively prevented conversion of Bank of England notes into gold: Frustrating procedural obstacles at the Bank and appeals to patriotism dissuaded would-be hoarders of gold; the pegging operations and high insurance rates undercut the incentive to export; and, most important, dealers in the London gold market refused to ship gold to countries that did not reciprocate with gold exports in trade transactions.

During its period of neutrality, the United States maintained specie payments and permitted gold to flow freely to and from other countries. Five months after the United States entered the war, President Wilson issued a proclamation that required all parties who wished to export gold from the United States to obtain permission from the Secretary of the Treasury and the Federal Reserve Board. Because most of these applications were denied, the United States effectively embargoed the export of gold, and this embargo partially suspended the gold standard from September 1917 until June 1919. Although unwilling to let the gold standard interfere with the war effort, the United States continued to maintain it in a limited sense, as banks did not suspend specie payments. In practice, however, even the redemption of notes for gold became difficult until the end of the war.

The struggle to restore the international gold standard after World War I differed significantly from past experience. In the half century before the war, the pound sterling and a growing family of gold-standard currencies provided a reliable point of reference for nongold currencies. During this period, the many countries that had either adopted or restored the gold standard could depend on the Bank of England to provide predictable policy in which changes in the Bank rate carefully regulated the Bank's reserve position. In 1919, almost every country regarded the gold standard as an essential institution; but, among the world powers, only the United States could be counted as a gold-standard country. For other major countries, four years of inflation, price controls, exchange controls, and massive gold shipments complicated the problem of restoration. Many governments weighed the pros and cons of returning to par versus devaluation, the latter involving the problematic selection of a new parity. Deflation and unemployment awaited nations that aspired to reinstate prewar gold parities. More, the general reestablishment of the international gold standard promised to precipitate large and discontinuous increases in the world demand for gold. Rather than subjecting their economies to undue turmoil, most governments preferred to wait, at least until the pound sterling—the key currency to which others looked for leadership—had stabilized. By default, the Federal Reserve assumed the office of manager of the gold standard.

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FEDERAL RESERVE'S POSTWAR DEFENSE OF THE GOLD STANDARD

> Every Federal reserve bank shall maintain reserves in gold or lawful money of not less than thirty-five per centum against its deposits and reserves in gold of not less than forty per centum against its Federal reserve notes in actual circulation.[1]

The Federal Reserve Act had legally preserved gold as the ultimate monetary standard in the United States. The gold standard, however, did not play an active role in the implementation of policy, as the act required that Federal Reserve Banks maintain only a minimum ratio of gold reserves to currency and deposits. (The gold standard would have played a more active role had the act stipulated the maintenance of a specific gold reserve ratio.) Because the gold reserve requirement rarely restrained policy between 1914 and 1933, the Federal Reserve had broad discretionary powers to manage the nation's money supply in the advancement of domestic objectives.[2] However, the gold standard remained as a latent check on the Federal Reserve: The required minimum ratio limited the Federal Reserve's authority to augment the money supply, which could continue to expand only so long as gold flowed into reserves.

From the opening of the Federal Reserve Banks in November 1914 to the signing of the Armistice in November 1918, wholesale prices in the United States doubled, and the money supply (currency held by the public plus demand deposits) grew 70 percent. Under normal conditions, a huge credit expansion and sizable inflation would have endangered the gold standard. However, the flood of gold imports during the period of U.S. neutrality had pushed the ratio of gold reserves to deposit and Federal Reserve note liabilities to 84.1 percent in March 1917. Although the gold reserve ratio declined fairly steadily after the United States entered the war, it stood at 48.3 percent at the end of the war, an adequate distance above the legal minimum.

After the war, two factors combined to lower the gold ratio; consequently, the gold standard in the United States encountered a challenge. First, the Federal Reserve supported the Treasury's placing of Liberty Bonds with banks by keeping the discount rate below market interest rates and thus postponed the reversal of the wartime monetary and price expansion. From the end of the war to January 1920, as member banks borrowed heavily from the Federal Reserve, the money supply rose 18 percent and the price level rose 16 percent. Second, the repeal by the United States of the gold export embargo in June 1919 made the gold standard fully operative. As a result, the United States exported gold in every month from June 1919 through March 1920, for a total for the period of $300 million. In hindsight, Benjamin Strong, the Governor of the New York Reserve Bank, conceded that an increase in the discount rate in the first quarter of 1919 "would have been as close to an ideal 100 per cent policy of perfection as could have been adopted."[3] By December 1919, the combination of gold exports and money supply growth had reduced the gold reserve ratio to 43.5 percent.

The Federal Reserve responded to these inflationary developments by choking off the credit expansion in 1920. Early in the year, the Federal Reserve Banks increased their discount rates 1.25 percentage points to 6 percent—the largest jump in the seventy-five-year history of the Federal Reserve—just as the economy entered a slump. Both the wholesale price level and the money supply peaked in the spring of 1920, and, partly because of gold exports, the gold ratio continued to edge down, to 40.9 percent in May.

1. Federal Reserve Act, P.L. 63-43 (December 23, 1913), sec. 16.

2. "During most of their life the Federal Reserve Banks have held large amounts of reserves in excess of requirements, and the actual amount of excess reserves and reserve ratio have not been of particular significance. At times, however—especially in 1920 and during the banking holiday in 1933—reserve ratios were close to the legal limit. In general, Federal Reserve credit policy is determined on the basis of the broad needs of the credit and business situation and not on the basis of variations in the reserve ratio." See Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics, 1914–1941* (Board of Governors, 1943), p. 329.

3. W. Randolph Burgess, ed., *Interpretations of Federal Reserve Policy in the Speeches and Writing of Benjamin Strong* (Harper & Brothers, 1930), p. 85, from a hearing before the Joint Commission of Agricultural Inquiry, August 2–11, 1921. Strong stated that the Federal Reserve resisted contracting the money supply in 1919 to prevent high interest rates from interfering with the flotation of the Victory Loan.

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In June 1920, the Federal Reserve Banks in New York, Chicago, Boston, and Kansas City pushed the discount rate to 7 percent, and they held it there until May 1921. Dear money plunged the economy into a depression. From the peak in January 1920 to the trough in July 1921, real output fell 4 percent; prices, 40 percent; and the money supply, 11 percent. During the eighteen-month depression, high interest rates attracted gold imports of $351 million, mitigating the adjustment to the monetary stringency. By July 1921, the gold reserve ratio had recovered to 61.7 percent. As the economy rebounded, prices stabilized and gold continued to flow into the United States; and from the end of 1921 to the end of 1925, the gold reserve ratio remained above 70 percent.

The decisive policy actions of 1920 attest to the Federal Reserve's limited scope for discretion under the gold standard. Had trends in monetary expansion persisted, the gold reserve ratio would have fallen below the legal minimum, a situation requiring a modification, suspension, or abandonment of the gold standard. Playing according to the rules, the Federal Reserve tightened credit, a move that attracted gold from abroad and caused notes to reflux. The Federal Reserve has been criticized for moving too late, for acting with too much force, and for keeping money dear too long. Its defense of the gold standard, however, conformed broadly to the European tradition of central bank policy.

Delayed Restoration of the International Gold Standard

In theory, the "strict rules" of the international gold standard regulated the international price structure and anchored the international price level over the long run. Consider a simplified description of the price–specie flow mechanism. Following an increase in a country's monetary gold stock (arising from, say, new discoveries of gold) and an expansion of the money supply, the domestic price level would rise, and the relative price of foreign goods would fall. This change in relative prices would induce an increase in imports and a reduction in exports, with gold exports balancing the trade deficit. The gold outflow would reduce pressure on the domestic price level and increase foreign prices. Domestic and foreign prices would converge, with the international price level determined by the world's monetary gold stock.

Federal Reserve Sterilization of Gold Flows

In practice, under the gold standard central banks had the ability—within limits—to manage the effects of gold flows. When a country imported gold, its central bank could sterilize the effect of the gold inflow on the monetary base by selling securities on the open market. When a country exported gold, its central bank could sterilize the gold outflow with open market purchases. For countries with gold reserve requirements, the legal ratio would limit the ability of the central bank to sterilize exports. For all gold standard countries, continued sterilization of gold exports would reduce the ratio of gold to notes, increasing the risk of a forced suspension of the gold standard should citizens attempt to redeem central bank notes for gold.

Sterilization of gold flows shifted the burden of the adjustment of international prices to other gold standard countries. When a country sterilized gold imports, it precluded the gold flow from increasing the domestic price level and from mitigating the deflationary tendency in the rest of the world. Under the international gold standard, no country had absolute control over its domestic price level in the long run; but a large country could influence whether its price level converged toward the world price level or world prices converged toward the domestic price level.

In the early 1920s, the United States bid a higher price for monetary gold than any other country did. As a result, gold flowed toward the United States and afforded considerable slack to the manager of the gold standard, the Federal Reserve. Instead of letting gold imports expand the money supply and raise the domestic price level, the Federal Reserve sterilized gold inflows and stabilized the domestic price level. Chart 1, which presents evidence of the sterilization, shows that changes in Federal Reserve Bank credit outstanding offset changes in the monetary

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gold stock in the 1920s.[4] Chart 1 also displays the success of the sterilization operations: After January 1921, the wholesale price level fluctuated within a narrow 6 percent band.

Traditionally, economists and politicians have criticized the Federal Reserve for not playing by the strict rules of the gold standard during the 1920s. For example, William A. Brown stated the following about the Federal Reserve policy of sterilization:

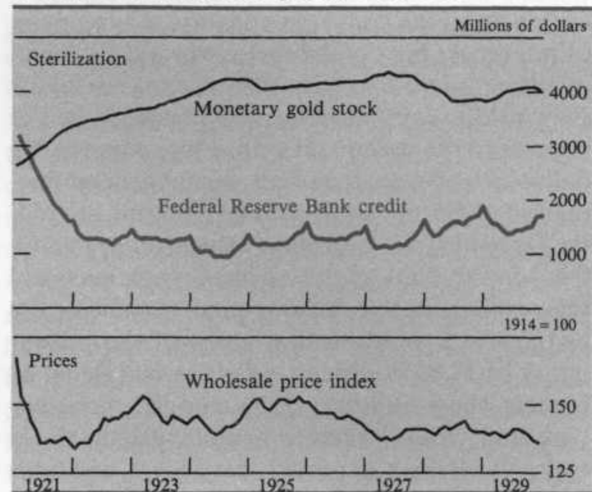
> From 1914 to 1925 it was true that the influence of American policy alone on American prices and therefore on the world value of gold was so dominant as to deprive the expression "maintaining the dollar at parity with gold" of the significance properly attributed to it when an international gold standard 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.[5]

This traditional judgment may have been too harsh: What were the "rules" of the international gold standard in a period when no major country other than the United States maintained a commitment to buy and sell gold at a fixed price without export restrictions? The gold standard could "anchor" the price level only if the world demand for gold were stable. In consideration of the international uncertainty, Federal Reserve sterilization in the early 1920s probably served the best interests of the United States.

Britain's Slow Return to Parity

After the war, Britain and all European countries wanted to restore the legal gold-backing for their currencies. However, wholesale prices in Britain had increased 115 percent from August 1914 to March 1919; and, after the British Treasury stopped pegging the pound in March 1919, the pound reeled to 69.5 percent of its prewar parity—to \$3.38—in February 1920. Meanwhile, as the government removed wartime price controls, prices in Britain surged another 41 percent.[6] Although determined to restore the prewar gold parity, the British had to wait for price deflation and sterling appreciation. While they waited, the formal embargo of exports on gold protected the Bank of England's gold reserve. The restocking boom propelled deposits and note circulation upward in 1919, but when the Bank of England pushed the Bank rate to 7 percent in April 1920 and held it there for an unprecedented 54 weeks, prices began to fall, the credit expansion slowly ceased, and the economy entered a depression.

1. Gold sterilization and prices, 1921-1929



SOURCE. Monthly data for the gold stock and for Federal Reserve Bank credit are from Board of Governors of the Federal Reserve System, *Banking and Monetary Statistics, 1914–1941* (Board of Governors, 1943), table 101; monthly data for wholesale prices are from George F. Warren and Frank A. Pearson, *Gold and Prices* (John Wiley, 1935), table 1, p. 14.

4. Federal Reserve Bank credit was the sum of the earning assets of the Federal Reserve Banks. The principal assets were bills discounted, bills bought, and government securities.

5. William Adams Brown, Jr., *The International Gold Standard Reinterpreted, 1914–1934*, vol. 1 (National Bureau of Economic Research, 1940), p. 286.

6. France's difficulties were even more serious than Britain's: French wholesale prices rose 249 percent from 1914 to 1919 and another 43 percent from 1919 to 1920. In February 1919, the French franc was at 95.1 percent of the prewar parity; by February 1920, it had fallen to 36.5 percent of the prewar parity.

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From 1920 through 1922, many of Europe's currencies were converging toward a fixed point of reference, but continental governments found it in their interest to have their currencies follow the world's main currency, the pound, in lieu of pegging to the dollar and gold. Fluctuation in the dollar–pound rate, therefore, meant general fluctuation of European currencies in terms of gold. By December 1922, Britain's decision to restore the prewar gold parity seemed sagacious and reasonable, as the dollar–pound exchange rate had reached $4.61, within grasp of the prewar parity of $4.8665. Prices in Britain had fallen 50 percent since February 1920, and the monetary base and credit structure had stabilized. Moreover, the British expected that recent additions to the U.S. monetary gold stock would increase U.S. prices and, consequently, ease the adjustment process in Britain.

Political and economic tensions on the continent combined with sterilization of gold imports by the Federal Reserve forced Britain to continue delaying restoration of the gold standard. The London Ultimatum of May 1921 had set the German reparations at $33 billion (approximately $230 billion in 1989 dollars). In January 1923, France and Belgium invaded the industrial Ruhr valley in Germany, offering the failure of Germany to meet reparation payments as justification. The Germans responded with passive resistance, and output in the Ruhr fell two-thirds. The German government printed money to support the unemployed in the Ruhr and thus launched the German mark on its famous hyperinflation. The Ruhr occupation induced capital to flee from Britain and Europe to the United States, trifurcating the world currency structure into dollar, sterling, and French franc areas and causing the dollar–pound exchange rate to slip to $4.25 by January 1924. The prospects of a restoration of the international gold standard seemed distant.

The United States emerged from isolationism in January 1924 with the Dawes Plan, which all but insured the success of the German currency reform of October 1923. The plan rescheduled reparation payments and provided a loan to Germany, which allowed Germany to meet transfer payments and still have resources available for domestic industrial expansion. From 1924 to 1929, Germany borrowed $5 billion, half of it from the United States. The World War I allies, in turn, used reparation funds to repay war debts to the United States. The Dawes Plan, which had the commitment of the financial resources of the United States as its foundation, demonstrated the ability of international cooperative agreements to allay financial crises.

The continental governments with new currency systems had to choose between pegging to the gold-backed dollar or stabilizing in terms of sterling. Uncertain leadership in the foreign exchange market in itself marked the waning power of the pound. Pressure on Britain to restore the gold standard mounted in 1924 as membership in the dollar group waxed: Sweden restored the gold standard in March; Germany adhered to the dollar group after Dawes loans stabilized the Reichsmark; Australia and South Africa, tired of waiting for Britain, decided independently to return to the gold standard. The pound sterling remained the predominant instrument in world trade and finance; yet the dollar, not sterling, gained respect for being as good as gold. By the end of 1924, the group of twenty-five currencies that had stabilized in terms of the dollar included the pound sterling.

The Federal Reserve's Role in the Restoration of the Gold Standard in Britain

In the spring and summer of 1924, the Federal Reserve assisted Britain as it prepared to restore the gold standard. Between May and August, the Federal Reserve Bank of New York cut the discount rate three times—overall, from 4.5 percent to 3 percent—and from the end of June through December 1924, Federal Reserve Bank credit outstanding rose from $831 million to $1,302 million, an unusually large increase even after accounting for seasonal movements. The United States had imported gold in every month from September 1920 to November 1924—a total of $1.47 billion—but from December 1924 through April 1925, U.S. gold exports totaled $172 million. In January 1925, as Britain neared restoration, the Federal Reserve Banks agreed to sell the British Treasury up to $200 million in gold, and a banking syndicate led by J.P. Morgan

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and Company provided it with a $100-million line of credit.

Lower interest rates undoubtedly expedited Britain's return to the gold standard. In the second half of 1924, this policy also stimulated the U.S. economy as it climbed out of a moderate recession. In the first quarter of 1925, however, the Federal Reserve moved to check the overheating domestic economy. In particular, on February 27, the Federal Reserve Bank of New York increased its discount rate to 3.5 percent, a move that complicated Britain's return to the gold standard. On March 5, 1925, the Bank of England increased the Bank rate from 4 percent to 5 percent to maintain the attractiveness of sterling assets.

On April 28, 1925, Winston Churchill, then Chancellor of the Exchequer, returned Britain to the gold standard by announcing that the Gold and Silver (Export Control) Act, which was due to expire at year-end, would not be renewed. On May 13, Parliament passed the Gold Standard Act of 1925, which obligated the Bank of England to sell gold bullion in exchange for notes at the prewar par of 77s. 10.5d. per standard ounce. At the end of 1925, thirty-nine countries had returned to par, had devalued their currency, or had achieved de facto stabilization with the dollar.

Fiscal Crisis and the Restoration of the Gold Standard in France

In the first half of the 1920s, the French government, already saddled with onerous debts incurred during the war, resorted to deficit financing in its campaign to rebuild the economy. During this period, the French franc fluctuated with the misfortunes of the German mark, as the prospective, but improbable, flow of German reparation payments promised to mitigate the fiscal burden in France. The German currency crisis thwarted French plans to collect reparations, and the franc depreciated from 14.97 francs per dollar in January 1923 to 22.63 francs per dollar in February 1924. After the Dawes Plan, the franc stabilized, holding steady below 20 francs per dollar from March 1924 until June 1925.

But the stabilization did not last, as the French government continued to run large budget deficits, a situation that led to a confrontation between the nation's monetary and fiscal authorities. Because the economy had a limited capacity to absorb more debt, the French government could not continue to float bonds without resorting to monetization. The Bank of France acquiesced. Advances to the state and the issuance of notes to purchase government securities rose rapidly, bumping against their ever-rising legal limits. From the Ruhr invasion in January 1923 to the climax of the crisis in July 1926, wholesale prices in France surged 116 percent, and the franc–dollar rate soared to 49 francs per dollar. Fearing a repetition of the hyperinflation that had swept across central Europe three years earlier, French investors poured their capital into gold-based assets.

In August, the Poincaré government broke the crisis by raising taxes. New legislation allowed the Bank of France to buy gold and foreign exchange at a premium and to issue notes against these assets without a legal limit. The fiscal stabilization plan succeeded as prices stopped rising, and the franc recovered in the foreign exchange market. In December, the French franc stabilized around 25 francs per dollar—an 80 percent devaluation from the 1914 parity. The stabilization of the French franc at an undervalued rate largely completed the de facto establishment of the international gold exchange standard. The restoration of the gold standard, however, provided only an illusion of stability to the international monetary system because exchange rates were misaligned. As a result of that misalignment, first Britain and later the United States had to engage in costly struggles to maintain the gold backing of their currencies.

Following the stabilization, the franc rose in influence, phoenix-like, out of the crisis that ravaged it. A substantial proportion of the flight capital of the summer of 1926 had landed in deposit balances in London and New York, where it lay, awaiting repatriation, capable of augmenting the strength of the undervalued franc in foreign exchange markets. Britain settled into an uneasy stability. Its restoration of the gold standard in 1925 had initiated a depression, but the unemployed could not rely on relief from the

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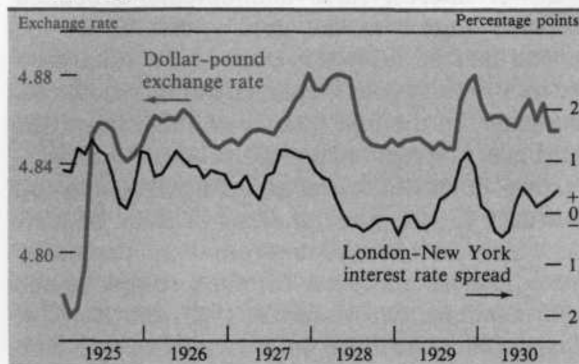
Bank of England, which had to keep interest rates competitive with those in New York. In February 1927, the French government eased the appreciation of the franc by beginning to pay off war and foreign loans. The overvalued pound, however, hovered around the gold export point during the first half of the year, as bids from France, Germany, Argentina, India, and the United States arrived in the London gold market. Continuation of the gold standard in Britain appeared dubious after the Bank rate fell from 5 percent to 4.5 percent on April 27.

Instability under the Gold Exchange Standard

Under an inter-central-bank agreement in July 1927, the Federal Reserve relieved pressure on the pound by agreeing to lower interest rates, an action that diverted the French demand for reserves from Britain to the United States. On August 5, the discount rate fell from 4 percent to 3.5 percent. Larger-than-seasonal open market purchases from the end of July to the end of December supplemented the discount policy, raising Federal Reserve Bank credit outstanding $563 million to $1,655 million. While the United States had imported $80 million in gold in the first half of 1927, gold exports totaled $234 million during the last half of the year. The cooperative policy initiative achieved its aim as the pound rose steadily in the second half of 1927.

The Federal Reserve abandoned the inter-central-bank agreement in 1928. A resurgence in stock prices followed the mild, thirteen-month recession (October 1926 to November 1927), compelling the Federal Reserve to reverse course. From February to July 1928, the discount rate rose from 3.5 percent to 5 percent; the London–New York interest rate spread, which favored London in January, had turned to favor New York by June. While exports of gold continued during the first half of 1928, by July high yields in New York had begun to draw gold back toward the United States, strengthening the dollar relative to the pound. As chart 2 shows, throughout the last half of the 1920s the dollar–pound exchange rate displayed high sensitivity to

2. Dollar-pound exchange rate and London–New York interest rate spread, 1925–1930



SOURCE. Monthly data. *Banking and Monetary Statistics, 1914–1941*: New York City, 90-day bankers acceptances, table 120; United Kingdom, 3-month bankers acceptances, table 172; and the dollar-pound exchange rate, table 173.

the spread between interest rates in London and New York.

The policy of the Federal Reserve in 1927 and 1928 paralleled its policy in 1924 and 1925. In both episodes, the Federal Reserve initially lowered the discount rate during the final stages of a recession. The relaxation of credit also ameliorated the international situation. In both episodes, the Federal Reserve pulled back as the U.S. economy showed signs of recovery. In 1925, the moderate policy reversal slightly obstructed Britain's return to the gold standard. In 1928, the severe reversal significantly disrupted Britain's struggle to retain gold.

When the Federal Reserve turned to manage the domestic economy in 1928, French investors began to repatriate capital en masse, and the Bank of France intervened to support the pound. As table 2 indicates, foreign exchange reserves at the Bank of France ballooned more than tenfold from the end of 1926 to the end of 1928.[7] The monetary law of June 25, 1928, stabilizing the franc, obligated the Bank of France to buy and sell gold on demand but revoked its power to buy foreign exchange; before the de jure stabilization, the Bank purchased foreign exchange for delivery in the forward market in the second half of 1928. Unfortunately, the accumulation of for-

7. Foreign exchange reserves in the Bank of France averaged only $4 million from 1906 to 1913; see Brown, *International Gold Standard*, vol. 2, p. 748.

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2. Gold and foreign exchange reserves in European central banks, 1924–32
Millions of dollars

Year-end or month-end	Gold reserves		Foreign exchange reserves	
	European central banks[1]	Bank of France	European central banks[1]	Bank of France
1924	2,278	710	844	14
1925	2,364	711	916	13
1926	2,565	711	1,158	116
1927	2,900	954	2,142	850
1928	3,488	1,254	2,513	1,287
1929	3,839	1,633	2,286	1,021
1930	4,314	2,099	2,296	1,027
1931				
March	4,379	2,193	2,013	1,027
June	4,311	2,222	1,995	1,031
September	4,784	2,351	1,509	899
December	5,271	2,699	1,212	842
1932				
March	5,569	3,017	846	488
June	5,876	3,253	591	240
September	5,865	3,240	563	185
December	5,875	3,257	504	176

1. Combined figures for 23 European central banks, including the Bank of France and excluding the Bank of England and the Russian State Bank.

SOURCES. Ragnar Nurkse, "*The Gold Exchange Standard*," in Barry Eichengreen, ed., *The Gold Standard in Theory and History (Methuen, 1985), appendix II;* and William Adams Brown, Jr., *The International Gold Standard Reinterpreted, 1914–1934*, vol. 2 (National Bureau of Economic Research, 1940), table 59.

eign exchange reserves only suppressed, and did not solve, the major problem of the restoration years, that is, a strong French franc and a weak British pound.

Abandonment of the Gold Standard by Britain

In 1929, European central banks, in general, became apprehensive about speculation in the U.S. stock market. While the Bank of France and other European central banks began to reduce foreign exchange reserves and to import gold, the Bank of England endeavored to guard its dwindling gold reserves by increasing the Bank rate, from 4.5 percent to 5.5 percent in February and to 6.5 percent in September. High as interest rates were in London, they were not high enough to attract funds from Wall Street during the final months of frenzy. In a sense, the stock market crash rescued the beleaguered gold standard in Britain: after October 1929, foreign funds fled from New York, and sterling gained a respite.

In times of financial stress, funds generally flow toward the world's safest and strongest financial center. Before the First World War, when this center was London, the world's financial markets were sensitive to changes in the Bank rate, which the Bank of England adjusted to sustain a normal level of gold reserves. A drop in gold reserves significantly below normal would be followed by an increase in the Bank rate, a reduction of capital exports from Great Britain, a shift from long-term to short-term lending, a reflux of gold to London from country banks, and imports of gold as funds moved to high rates in London. In 1929, however, two financial centers, London and New York, attracted gold. Although gold in the Issue Department of the Bank of England rose in the final two months of 1929, Britain exported $74 million in gold for the year 1929, $41 million of which went to the United States. In contrast, even though heavy exports of gold followed the crash on Wall Street, the United States imported a net of $120 million in gold for 1929. The financial centers continued to attract gold in 1930: Britain imported $23.6 million in gold with little change in the Bank of England's reserve condition, while the United States imported $278 million in gold.

From the spring of 1925, when the gold standard was restored, to the fall of 1931, when it was abandoned, the Bank of England resisted forays on the exchange value of the pound sterling. In May 1931, a run on the Kreditanstalt, the largest Austrian bank, initiated the final defense of the gold exchange standard in Britain. From March

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to September 1931, the National Bank of Austria lost 55 percent of its large foreign exchange reserves as it tried to fight back capital flight. In June 1931, panic spread from Austria to Germany, and German banks scrambled to exchange sterling deposits for gold in London. From May 30 to June 30, the Reichsbank lost 34 percent of its gold and foreign exchange reserves. In July, with foreigners storming its gold reserve, the Bank of England shielded the domestic credit system by purchasing securities on the open market, by arranging a £50 million credit with the Federal Reserve Bank of New York and the Bank of France, and by transferring securities from the Banking to the Issue Department to provide for new fiduciary issue. With the exchange rate below the gold export point, the Bank of England barricaded its gold reserves by raising the Bank rate from 2.5 percent to 3.5 percent on July 23 and to 4.5 percent on July 30. In spite of these protective efforts, gold reserves in the Issue Department shrank £30.9 million—29 percent—from June 24 to July 29. Late in August, the Bank of England secured an additional £80 million in emergency credits, but the continental and American demand for gold continued to assault the London bullion market.

In the last two months of its defense of the gold standard, Britain exported £200 million in gold and foreign exchange. On Wednesday, September 16, withdrawals from Britain totaled £5 million; on Thursday, £10 million; on Friday, £18 million; on Saturday, a half day, more than £10 million. On Monday, September 21, 1931, the British abandoned the gold standard. On that day, the *London Times* provided the following analysis:

> The real crux of the present crisis is the unprecedented fall in prices which has driven most countries off the gold standard and left them in a position in which default upon their contractual obligations in gold is unavoidable. World prices have fallen below the pre-War level. Most countries are carrying much greater obligations in gold than before the War, and though they could easily meet these when prices were 50 per cent or more above the pre-War level, they are unable to do so now. . . . The international economic crisis has played a large part in the temporary abandonment of the gold standard. The responsibility for this belongs to those countries which have hoarded gold on an unprecedented scale. Creditor countries which insist upon payment in gold are asking for the impossible. Prohibitive tariffs keep out goods, and unless the creditor nations re-lend the credits due to them the debtor nations must pay in gold to the extent of their resources and then default. The gold standard game can only be played according to its well-proven rules. It cannot be played on the new rules practised since the War by France and the United States.[8]

Britain had restored the gold standard but had not been able to restore the unchallenged supremacy of the pound sterling. In the six years of the restoration, the unemployment rate among insured workers in Britain averaged 12.9 percent and never fell below 8.5 percent; in the first nine months of 1931, it averaged 21 percent. So long as the Bank of England rendered gold bullion for notes, the unemployed in Britain were sentenced to serve time with deflation and high real interest rates.

Federal Reserve Policy after Britain Abandoned the Gold Standard

Britain's abandonment of the gold standard created a conflict between domestic and international policy objectives at the Federal Reserve. On the one hand, two years of uninterrupted deflation and mounting unemployment called for the Federal Reserve to stimulate the domestic economy with an expansion of the money supply. On the other hand, international responsibilities and the threat of gold exports called for the Federal Reserve to tighten credit and demonstrate its commitment to the gold standard. The abrupt depreciation of the pound—in October it plunged from the parity of \$4.86 to \$3.89, and by December it was at \$3.37—had inflicted capital losses on Europeans who held sterling assets. With the pound no longer backed by gold, the dollar became the gold standard's major reserve currency just when European central banks desired to prevent further losses on foreign exchange reserves by discarding the gold exchange standard and adopting a gold bullion standard.

8. "Gold Standard Suspension: Cause of the World Crisis," *London Times*, September 21, 1931.

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Even though foreign exchange reserves in European central banks fell 25 percent during the summer attack on sterling, foreign exchange still constituted a substantial percentage of total European reserves in September 1931. The Bank of France, in particular, still held large foreign exchange reserves.[9] To prevent a wholesale liquidation of dollar reserves, the Federal Reserve needed to assure the Bank of France of the U.S. intention to remain on the gold standard.

Although these domestic and international objectives conflicted, they were not mutually exclusive: The Federal Reserve could have sterilized gold exports with open market purchases. In the fourth quarter of 1931, however, the Federal Reserve bought only $75 million in government securities, while gold exports, including gold earmarked for export, totaled $294 million. Moreover, the New York Federal Reserve Bank increased the discount rate from 1.5 percent to 2.5 percent on October 9 and to 3.5 percent on October 15. These actions demonstrated the Federal Reserve's commitment to the international gold standard. Nevertheless, European discontent with the gold exchange standard did not subside. From late September 1931 to late June 1932, the combined foreign exchange holdings of twenty-two European central banks (not including the Bank of France) fell 42 percent; and foreign exchange reserves in the Bank of France plunged 73 percent.

Under pressure from the Congress, the Federal Reserve embarked on a program of open market purchases in the spring of 1932, by purchasing $912 million of government securities. The net effect of monetary policy was only slightly expansionary, however, since the gold stock fell $417 million and the total of bills bought and bills discounted fell $199 million. The Federal Reserve could have expanded the open market purchase program without threatening the gold standard: Although the gold reserve ratio had edged down to 56.3 percent in July 1932, it still remained well above the legal minimum. Because the Federal Reserve was unable to reach a consensus on open market policy, the program faded in the summer of 1932. In January 1933, the Federal Reserve voted to reduce its government bond portfolio.[10]

Low nominal interest rates in the United States during the 1930s persuaded many political leaders and economists at the time of the impotence of monetary policy. With the benefit of further analysis of the evidence, many economists now maintain that, although nonmonetary and international shocks played a role, the contraction was substantially exacerbated by the policy of the Federal Reserve.[11] In particular, during the Great Depression, the Federal Reseve allowed the money supply to fall substantially. After Britain abandoned the gold standard, that fall accelerated.

Suspension of the Gold Standard in the United States: 1933–34

From October 1929 to March 1933, wholesale prices in the United States fell 37 percent, and farm prices plummeted 65 percent. The 30 percent devaluation of the pound after September 1931 undermined the competitiveness of the U.S. export sector and exacerbated deflationary pressures. The 900 duties imposed under the Smoot–Hawley tariff of 1930 provoked retaliation, and both the value and the volume of international trade fell with each successive year. Reparations had been abolished; and in the United States, the debt burden had reached the breaking point. The money supply had fallen one-third since the stock market crash. The annual number of bank suspensions, which had never exceeded 1,000 during the 1920s, totaled 1,350 in 1930; 2,293 in 1931; and 1,453 in 1932. Stocks had decreased in value more than 50 percent since 1926 and more

9. In September 1931, foreign exchange reserves as a percentage of total reserves totaled 27.7 percent in France, 35 percent in Italy, 51.6 percent in Danzig, 61.9 percent in Finland, 68.2 percent in Hungary, 71 percent in Latvia, 58.3 percent in Lithuania, 43.6 percent in Czechoslovakia, 79.1 percent in Greece, 73 percent in Portugal, and 24 percent for the combined balance sheet of twenty-three European central banks. See Brown, *International Gold Standard*, vol. 2, p. 748.

10. Milton Friedman and Anna Jacobson Schwartz, *A Monetary History of the United States, 1867–1960* (Princeton University Press for the National Bureau of Economic Research, 1963), chap. 7.

11. Ibid., *Monetary History*, chap. 7.

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than 80 percent since the 1929 peak. Real output languished at two-thirds of its 1929 level. On Inauguration Day in 1933, more than 12 million people were unemployed.

An internal run on deposits and an external demand for gold combined to assault the gold standard in the United States after the abandonment of the gold standard in Britain. Federal Reserve notes in circulation rose from $1.87 billion in October 1929 to $2.02 billion in September 1931. Then, as a panicky public cashed in deposit balances, the total swelled to $4.04 billion in March 1933. The Federal Reserve ratio of gold to note and deposit liabilities, which stood at 81.4 percent a month before Britain left the gold standard, slumped to 51.3 percent in March 1933, the lowest level since 1921. In contrast to European governments, which had adopted the gold bullion standard in the restoration period, the government of the United States continued to mint and circulate gold coins in 1933. In the first two years of the Great Depression, gold flowed to the United States, causing the monetary gold stock to increase from $4.10 billion in October 1929 to $4.45 billion in September 1931. In the eighteen months after Britain's departure from the gold standard, the United States supplied the world demand for hoarding with gold exports, and the monetary gold stock fell to $3.99 billion. Domestic hoarding of gold coins emerged in early 1933 as suspicion about banks devolved into distrust of paper money. Gold reserves fell $300 million during the banking crisis in February and March. By the day of Franklin D. Roosevelt's inauguration—Saturday, March 4, 1933—all the leading domestic exchanges and the Federal Reserve banks had closed, and every state had wholly or partly suspended banking operations.

President Roosevelt and the Suspension of the Gold Standard

President Roosevelt solved the dilemma of choosing between domestic and international objectives: He placed domestic objectives first. On March 6, 1933, he proclaimed a bank holiday and suspended gold convertibility and gold exports, leaving the gold standard in limbo. Four days later, an executive order authorized Secretary of the Treasury William Woodin to issue licenses to reopen sound member banks; nonmember banks could reopen with licenses from state banking authorities. The Emergency Banking Act of March 9, 1933, boosted confidence in the banking system. Between March 13 and March 15, nearly 70 percent of the commercial banks reopened, but an executive order still prohibited banks from paying out gold coin, bullion, or certificates, and gold exports were forbidden except under licenses issued by Secretary Woodin. An executive order on April 5 quickened the reversal of the internal drain by requiring the rendering of gold coins, bullion, and certificates to Federal Reserve Banks on or before May 1. By April, Federal Reserve notes in circulation had fallen to $3.53 billion, and the gold reserve ratio had rebounded to 61 percent.

On April 19, the Roosevelt Administration revealed that its list of principal objectives did not include the words "gold standard." During the previous month, Secretary Woodin had freely granted gold export licenses; on April 18, however, he refused to do so. On April 19, Roosevelt ordered a prohibition on gold exports, except for gold already earmarked to foreign governments. On the same day, the President and his staff met with Senator Elmer Thomas for two hours and drafted an amendment that passed on May 12 as part of the Agricultural Adjustment Act. The Thomas amendment, also known as the Inflation Bill, gave the President permission to reduce the gold content of the dollar 50 percent, granted him sweeping powers to purchase silver, and charged the Federal Reserve to issue greenbacks and to purchase $3 billion in government securities. In response to these developments, J.P. Morgan stated that "the effort to maintain the exchange value of the dollar at a premium as against depreciated foreign currencies was having a deflationary effect upon already severely deflated American prices and wages and employment" and gave his imprimatur to the suspension of the gold standard "as being the best possible course under existing circumstances."[12]

The Administration's orchestrated suspension of the gold standard on April 19 incited a marked

12. "Morgan Praises Gold Embargo as the 'Best Possible Course,'" *New York Times*, April 20, 1933.

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response in the markets. The dollar sank 11.5 percent against gold standard currencies. The dollar–pound rate leaped 23 cents to $3.85, the highest level since October 31, 1931. Stock prices posted strong gains in a heavy volume of trading, and spot prices on the Chicago commodities exchanges soared.

The suspension of the gold standard in March and April 1933 resembled standard interludes in the ongoing historical drama, rather than an overture to devaluation. The prohibition on gold hoarding freed the United States from its technical handicap of having gold circulate as a medium of exchange. A simple resumption of convertibility would have restored the gold standard—a gold bullion standard—in the United States. Restoration of the gold standard did not involve insurmountable problems: Legislative initiatives were rebuilding confidence in the banking system; notes were returning to deposit accounts; the gold reserve ratio was recovering; and the dollar was clinging near the gold export point throughout the period. Had it so desired, the Roosevelt Administration could have preserved the gold parity.

President Roosevelt suspended the gold standard in April 1933 because it encumbered advancement toward the major domestic monetary objective: reflation. Leaders in the White House, in the Senate, and on Wall Street expressed hope for the restoration of a metallic standard; however, they regarded it as a distant objective. They voiced concern about the instability of exchange rates but designated export growth, which would be prompted by competitive devaluation, as a primary objective. Relieving unemployment, instituting a massive public works program, and increasing domestic prices were foremost in the objectives of the New Deal. The new administration saw the need to subordinate the gold standard to the pursuit of these domestic objectives. The United States suspended the gold standard not out of necessity but out of a change of attitude.[13]

13. The United States was not the only country to become disillusioned with the gold standard. Between Britain's departure in September 1931 and the U.S. suspension in April 1933, twenty-six countries went off the gold standard.

The World Monetary and Economic Conference

On June 12, 1933, the World Monetary and Economic Conference convened in London to solve the problems of the Great Depression through international cooperation. The participants recognized that retaliatory tariffs had significantly contributed to the worldwide crisis. Any agreement, therefore, would have to build a framework for exchange rate stabilization and require credible pledges for abstention from competitive devaluations. At the time, the world's financial leaders believed that the basis for international monetary stability would be gold.

The conference failed to achieve its goals because the United States refused to agree to anything that might endanger its domestic recovery. In June 1933, spurred by the devaluation of the dollar, the U.S. economy was three months into the strongest peacetime expansion in the nation's history, albeit an uneven one that started from a low level. From March to June 1933, wholesale prices in the United States rose 8 percent, and farm prices and stock prices jumped 36 percent and 73 percent respectively. The dollar had depreciated, and the new administration in its reflation policy counted on further depreciation. On June 5, 1933, the U.S. Congress undid the final link between the gold standard and the domestic economy when it abrogated the gold clause in government and private contracts.

In late June, the conference participants drew up a weak policy declaration, which called for a return to the international gold standard but which permitted each country to choose the time of restoration and the par value. On July 3, Roosevelt issued this strongly worded rejection of the proposal:

> The world will not long be lulled by the specious fallacy of achieving a temporary and probably an artificial stability in foreign exchange on the part of a few large countries only. The sound internal economic system of a nation is a greater factor in its well-being than the price of its currency in changing terms of the currencies of other nations. . . . Old fetishes of so-called international bankers are being replaced by efforts to plan national currencies with the objective of giving to those currencies a continuing purchasing power which does not greatly vary in terms

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> of the commodities and need of modern civilization. . . . Our broad purpose is permanent stabilization of every nation's currency. Gold or gold and silver can well continue to be a metallic reserve behind currencies, but this is not the time to dissipate gold reserves. When the world works out concerted policies in the majority of nations to produce balanced budgets and living within their means, then we can properly discuss a better distribution of the world's gold and silver supply to act as a reserve base of national currencies.[14]

Gold Purchases and Devaluation

Throughout the last half of 1933, the Administration's policy of reflation raised the price of gold well above the par of $20.67 per ounce. By early September, the dollar had depreciated 35 percent against the French franc, and by mid-September the dollar–pound rate had spiraled up to $4.80. On October 22, with the price of gold at $29 an ounce, Roosevelt, hoping that the program would raise commodity prices, authorized the Reconstruction Finance Corporation to purchase gold newly mined in the United States and, if necessary, to buy gold in the world market. On October 25, the RFC set its price for domestic gold purchases at $31.46, which was 27 cents above the world price. After the RFC began purchasing gold in the world market, the price of gold rose almost daily—to $34.01 on December 1—and the pound appreciated to $5.18. From April to December 1933, the Federal Reserve increased its holdings of government securities from $1.84 billion to $2.43 billion. During this interval, currency flowed into deposit balances, the money supply rose 4 percent, and the gold reserve ratio stayed above 60 percent. The New York Federal Reserve Bank assisted the open market policy by lowering the discount rate from 3.5 percent in March to 3 percent in April, to 2.5 percent in May, and finally to 2 percent in October.

These expansionary policies communicated the Roosevelt Administration's goal of higher prices. After the initial surge in the spring of 1933, however, the price level scarcely stirred from its position in June, and it tarried 26 percent below the 1929 level. Disappointed, Roosevelt invoked a provision of the Thomas amendment in December 1933, instructing the U.S. mint to purchase newly mined silver at 64.65 cents per ounce, a 47 percent premium above the market price of 44 cents per ounce. (Early in 1933, silver had traded at 25 cents per ounce.) The Silver Purchase Act of June 1934 furthered the huge addition to the silver stock. Because it enabled the Treasury to base an expansion of currency in circulation on silver, the silver purchase program legally elevated silver's status in monetary policy and, concomitantly, diminished the influence of gold.

The New Monetary Regime

In January 1934, the United States relegated gold to a subordinate role in monetary policy. On January 15, the Roosevelt Administration sent legislation to the Congress vesting title of all monetary gold in the United States in the Treasury and giving the President the authority to lower the gold content of the dollar to between 50 percent and 60 percent of its earlier level and to change the value of the dollar within this 10 percent range at any time. On January 16, the Federal Reserve took over the gold-purchasing program from the RFC and began buying gold at $34.45 per ounce. Finally, on January 30, 1934, the Congress gave Roosevelt what he wanted: the Gold Reserve Act. The act transferred title of gold from the Federal Reserve to the United States government, prohibited gold coinage, and banned gold from circulation. By proclamation, on January 31, 1934, Roosevelt fixed the price of gold at $35 per ounce, a devaluation of the dollar to 59.06 percent of the par instituted in 1879 under the Resumption Act; this action increased the official value of the monetary gold stock from $4,033 million to $7,438 million. Because all gold had been nationalized, the government gained a $3 billion paper profit.

When it flourished, the international gold standard facilitated the flow of goods and capital among countries and promoted international price stability over the long run. When it floundered, the international gold standard became a weapon for large countries to wield in the ad-

14. "Roosevelt Rebuke Stuns Gold Bloc, but Conference Likely To Go On; President Turns to Domestic Drive: Text of President's Statement," *New York Times*, July 4, 1933.

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vancement of domestic objectives. After the United States fixed the price of gold in 1934, the world's gold poured into the United States Treasury, and the already disquieted world markets fell into a frenzy. Gold imports for February totaled $454 million, of which $239 million flowed from London and $124 million from France. In 1934, the United States imported $1.22 billion in gold; in 1935, $1.74 billion.

The term *competitive devaluation* understates the magnitude of the monetary metamorphosis. In 1934, the United States registered surpluses in the international accounts of commodity trade ($478 million) and of interest and dividends ($93 million), while it imported both short-term capital ($184 million) and long-term capital ($202 million). The decline of the dollar set back the efforts of countries that were off the gold standard to contrive domestic recovery through export growth. The dollar–pound rate averaged more than $4.88 in every year from 1934 until 1939. Dollar devaluation forced gold-bloc countries to abandon the gold standard, to devalue their currencies, or to suffer through more deflation. The French franc eventually succumbed to devaluation in 1936.

The shift in the focus of U.S. monetary policy toward domestic objectives culminated with the Gold Reserve Act, which greatly diminished the influence of the gold standard. While the act restored the commitment by the United States to buy gold at a fixed price, it restricted sales to those involving international settlements. Americans could no longer redeem dollars for gold. The act allowed the President to change the gold content of the dollar at any time. As a result of the act, concern about the level of gold reserves was all but completely obviated. The institutional framework that ensued defies easy description. Friedman and Schwartz named it a "discretionary fiduciary standard," and Brown coined the term "administrative international gold bullion standard."[15] The Federal Reserve called it "our modified gold standard."[16] Without doubt, the United States did more than devalue the dollar in 1934. It changed its monetary regime.

15. Friedman and Schwartz, *Monetary History*, p. 474; and Brown, *International Gold Standard*, vol. 2, p. 1303.

16. Board of Governors of the Federal Reserve System, *The Federal Reserve System: Purposes and Functions* (Board of Governors, 1963), p. 166.

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