BARRY EICHENGREEN

GLOBALIZING CAPITAL

A HISTORY OF THE INTERNATIONAL MONETARY SYSTEM

Second Edition

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— CHAPTER FOUR —

The Bretton Woods System

To suppose that there exists some smoothly functioning automatic mechanism of adjustment which preserves equilibrium if we only trust to methods of laissez-faire is a doctrinaire delusion which disregards the lessons of historical experience without having behind it the support of sound theory.
(John Maynard Keynes)

Even today, more than three decades after its demise, the Bretton Woods international monetary system remains an enigma. For some, Bretton Woods was a critical component of the postwar golden age of growth. It delivered a degree of exchange rate stability that was admirable when compared with the volatility of the preceding and subsequent periods. It dispatched payments problems, permitting the unprecedented expansion of international trade and investment that fueled the postwar boom.

Other perspectives on Bretton Woods are less rosy. Ease of adjustment, it is argued, was a consequence rather than a cause of buoyant growth. And the notion that Bretton Woods reconciled exchange rate stability with open markets was largely an illusion. Governments restricted international capital movements throughout the Bretton Woods years. Foreign investment occurred despite, not because of, the implications of Bretton Woods for international capital mobility.

The Bretton Woods System departed from the gold-exchange standard in three fundamental ways. Pegged exchange rates became adjustable, subject to specific conditions (namely, the existence of what was known as "fundamental disequilibrium"). Controls were permitted to limit international capital flows. And a new institution, the International Monetary Fund (IMF), was created to monitor national economic policies and extend balance-of-payments financing to countries at risk. These innovations addressed the major worries that policymakers inherited from the 1920s and 1930s. The adjustable peg was an instrument for eliminating balance-of-payments deficits—an alternative to the deflationary increases in central bank discount rates that had proved so painful between the wars. Controls were designed to avert the threat posed by volatile capital flows of the sort that were disruptive in both interwar decades. And the IMF, armed with financial resources, powers of surveillance, and a *scarce-currency-clause*, could sanction governments responsible for policies that destabilized the international system and compensate countries that were adversely affected.

In principle, these three elements of the Bretton Woods System complemented one another. Pegged but adjustable exchange rates were feasible only because capital controls insulated countries seeking to protect their currencies from destabilizing capital flows and provided the breathing space needed to organize orderly adjustments. IMF resources provided an extra line of defense for countries attempting to maintain pegged exchange rates in the face of market pressures. And the Fund's surveillance discouraged the kind of changes in parities and controls that might have led to abuses of the system.

Unfortunately, the three elements of this triad did not function entirely harmoniously in practice. The adjustable peg proved to be an oxymoron: parity changes, especially by the industrial countries at the center of the system, were extraordinarily rare. IMF surveillance turned out to have blunt teeth. The Fund's resources were quickly dwarfed by the postwar payments problem, and the scarce-currency clause that was supposed to sanction countries whose policies threatened the stability of the system was never invoked.

Capital controls were the one element that functioned more or less as planned. Observers today, their impressions colored by the highly articulated financial markets of the late-twentieth century, are skeptical of the enforceability of such measures. But circumstances were different in the quarter-century after World War II. This was a period when governments intervened extensively in their economies and financial systems. Interest rates were capped. The assets in which banks could invest were restricted. Governments regulated financial markets to channel credit toward strategic sectors. The need to obtain import licenses complicated efforts to channel capital transactions through the current account. Controls held back the flood because they were not just one rock in a swiftly flowing stream. They were part of the series of levees and locks with which the raging rapids were tamed.

The efficacy of controls should not be exaggerated. They were more effective in the 1940s and 1950s than subsequently. As the white-water analogy suggests, the relaxation of domestic regulations and current-account restrictions weakened their operation. With the return to current-account convertibility in 1959, it became easier to over- and under-invoice imports and exports and otherwise channel capital transactions through the current account. But those who would minimize the effectiveness of capital controls in the Bretton Woods years overlook the fact that governments were continually testing their limits. The needs of postwar reconstruction were immense. Reducing unemployment and stimulating growth implied running the economy under high pressure of demand. Governments pushed to the limit the implications for the balance of payments, straining controls to the breaking point.

Indeed, in the 1950s, before the Bretton Woods System came into full operation, countries experiencing persistent balance-of-payments deficits and reserve losses tightened not just capital controls but also exchange restrictions and licensing requirements for importers, or at least slowed the rate at which they were relaxed, in order to strengthen the trade balance. Such restrictions on current-account transactions would not have been effective without the simultaneous maintenance of capital controls.

The retention of controls was essential because of the absence of a conventional adjustment mechanism. The commitment to full employment and growth that was integral to the postwar social compact inhibited the use of expenditure-reducing policies. The deflationary central bank policies that had redressed payments deficits under the gold standard were no longer acceptable politically. The International Monetary Fund lacked the power to influence national policies and the resources to finance the payments imbalances that resulted. Allowing countries to change their exchange rates only in the event of a fundamental disequilibrium prevented them from using *expenditure-switching policies* to anticipate problems. The exchange rate could be changed only in a climate of crisis; therefore in order to avoid provoking crisis conditions, the authorities could not even contemplate the possibility. As William Scammell put it, "By attempting a compromise between the gold standard and fixed rates on the one hand and flexible rates on the other the Bretton Woods planners arrived at a condition which . . . [was] not a true adjustment system at all."[1]

Exchange controls substituted for the missing adjustment mechanism, bottling up the demand for imports when the external constraint began to bind. But starting in 1959, with the restoration of current-account convertibility, this instrument was no longer available.[2] Controls remained on transactions on *capital account*, but their use did not ensure adjustment; it only delayed the

[1] Scammell 1975, pp. 81–82.

[2] Some countries did maintain modest controls: the United Kingdom, for example, lifted exchange controls for nonresidents, as required by Article VIII of the IMF Articles of Agreement, but retained some controls on international financial transactions by residents. In any case, the scope for utilizing such restrictions for balance-of-payments purposes was greatly reduced.

day of reckoning. In the absence of an adjustment mechanism, the collapse of the Bretton Woods international monetary system became inevitable. The marvel is that it survived for so long.

WARTIME PLANNING AND ITS CONSEQUENCES

Planning for the postwar international monetary order had been under way since 1940 in the United Kingdom and 1941 in the United States.[3] Under the terms of the Atlantic Charter of August 1941 and the Mutual Aid Agreement of February 1942, the British pledged to restore sterling's convertibility on current account and accepted the principle of nondiscrimination in trade in return for U.S. promises to extend financial assistance on favorable terms and to respect the priority the British attached to full employment. Attempting to reconcile these objectives were John Maynard Keynes, by now the grand old man of economics and unpaid adviser to the chancellor of the Exchequer, and Harry Dexter White, a brash and truculent former academic and U.S. Treasury economist.[4] Their rival plans passed through a series of drafts. The final versions, published in 1943, provided the basis for the "Joint Statement" of British and American experts and the Articles of Agreement of the International Monetary Fund.

The Keynes and White Plans differed in the obligations they imposed on creditor countries and the exchange rate flexibility and capital mobility they permitted. The Keynes Plan would have allowed countries to change their exchange rates and apply exchange and trade restrictions as required to reconcile full employment with payments balance. The White Plan, in contrast, foresaw a world free of controls and of pegged currencies superintended by an international institution with veto power over parity changes. To prevent deflationary policies abroad from forcing countries to import unemployment, Keynes's Clearing Union provided for extensive balance-of-payments financing (subject to increasingly strict conditionality and penalty interest rates) and significant exchange rate flexibility. If the United States ran persistent payments surpluses, as it had in the 1930s, it would be obliged to finance the total drawing rights of other countries, which came to $23 billion in Keynes's scheme.

[3]The failure of the Genoa Conference, which was convened three years after the conclusion of World War I, and the unsatisfactory operation of the international monetary system in the 1920s, reminded the American and British governments not to neglect planning. The best review of wartime negotiations remains Gardner 1969.

[4]This is the Harry D. White whose research on the French balance of payments in the nineteenth century figures in Chapter 2.

Predictably, the Americans opposed Keynes's Clearing Union for "involving unlimited liability for potential creditors."[5] The Congress, American negotiators insisted, would not sign a blank check. The White Plan therefore limited total drawing rights to a much more modest $5 billion and the U.S. obligation to $2 billion.

The Joint Statement and the Articles of Agreement were a compromise, one that reflected the asymmetric bargaining power of the British and Americans. Quotas were $8.8 billion, closer to the White Plan's $5 billion than the Keynes Plan's $26 billion.[6] The maximum U.S. obligation was $2.75 billion, far closer to White's $2 billion than to Keynes's $23 billion.[7]

The less generous the financing, the greater the need for exchange rate flexibility. And so U.S. proposals for fixed rates went by the board. The compromise between U.S. insistence that exchange rates be pegged and British insistence that they be adjustable was, predictably, the "adjustable peg." Article XX of the agreement required countries to declare par values for their currencies in terms of gold or a currency convertible into gold (which in practice meant the dollar) and to hold their exchange rates within 1 percent of those levels. Par values could be changed to correct a "fundamental disequilibrium" by 10 percent following consultations with the Fund but without its prior approval, by larger margins with the approval of three-quarters of Fund voting power. The meaning of the critical phrase "fundamental disequilibrium" was left undefined. Or, as Raymond Mikesell put it, it was never defined in fewer than ten pages.[8] In addition, the Articles of Agreement permitted the maintenance of controls on international capital movements. This was contrary to

[5] See Harrod 1952, p. 3. There is an analogy with the situation in Europe in the 1970s. In 1978, when the creation of the European Monetary System was under discussion, the German Bundesbank was similarly reluctant to agree to a system that obligated it to unlimited support for weak-currency countries. See Chapter 5.

[6] This $26 billion figure is the sum of the $3 billion of drawing rights to which the United States would have been entitled under the Keynes Plan and the above-mentioned $23 billion of other countries.

[7] Quotas were, however, subject to quinquennial review under the provisions of the Articles of Agreement (Article III, Section 2) and could be increased with the approval of countries that possessed 80 percent of total voting power. White insisted to Keynes (in a letter dated July 24, 1943) that it would be impossible to marshal support for more than $2–3 billion from an isolationist Congress. See Keynes 1980, p. 336. Even that amount was not certain to receive congressional ratification. The timing of the Bretton Woods Conference was determined by the desire to finalize the Articles of the Agreement before the November 1944 congressional elections, in which isolationist Republicans were expected to make major gains. The venue, the Mount Washington Hotel in Bretton Woods, New Hampshire, was chosen in part to win over that state's incumbent Republican senator, Charles Tobey.

[8] See Mikesell 1994.

White's early vision of a world free of controls on both trade and financial flows. In the same way that their insistence on limiting the volume of finance forced the Americans to accede to British demands for exchange rate flexibility, it forced them to accept the maintenance of capital controls.

Finally, the British secured a scarce-currency clause authorizing controls on imports from countries that ran persistent payments surpluses and whose currencies became scarce within the Fund. This would occur if, for example, the United States' cumulative surpluses reached $2 billion and its contribution to Fund resources were fully utilized to finance the dollar deficits of other countries. In addition, the British secured American agreement to a limited period in which controls on current transactions could be maintained. Under Article XIV, the IMF would report on countries' controls after three years, and after five it would begin advising members on policies to facilitate their removal, the implicit threat being that countries making insufficient progress could be asked to leave the Fund.

In retrospect, the belief that this system could work was extraordinarily naive. The modest quotas and drawing rights of the Articles of Agreement were dwarfed by the dollar shortage that emerged before the IMF opened for business in 1947. Postwar Europe had immense unsatisfied demands for foodstuffs, capital goods, and other merchandise produced in the United States and only limited capacity to produce goods for export; its consolidated trade deficit with the rest of the world rose to $5.8 billion in 1946 and $7.5 billion in 1947. In recognition of this fact, between 1948 and 1951, a period that overlapped with the IMF's first four years of operation, the United States extended some $13 billion in intergovernmental aid to finance Europe's deficits (under the provisions of the Marshall Plan). This was more than four times the drawing rights established on Europe's behalf and more than six times the maximum U.S. obligation under the Articles of Agreement. Yet despite support far surpassing that envisaged in the Articles of Agreement, the initial system of par values proved unworkable. In September 1949 European currencies were devalued by an average of 30 percent. And still import controls proved impossible to remove.

How could American planners have so underestimated the severity of the problem? Certainly, there was inadequate appreciation in the United States of the damage suffered by the European and Japanese economies and of the costs of reconstruction.[9] This bias was reinforced by the faith of American planners

[9]Europeans closer to the problem appreciated the magnitude of their prospective payments difficulties. The IMF, for its part, made note in its first two reports of the need for adjustment of rates.

in the power of international trade to heal all wounds. Cordell Hull, FDR's long-time secretary of state, had made the restoration of an open multilateral trading system an American priority. Extensive trading links, in his view, would heighten the interdependence of the French and German economies, suppress political and diplomatic conflicts, and prevent the two countries from again going to war. Trade would fuel recovery and provide Europe with the hard-currency earnings needed to import raw materials and capital goods. Once an open, multilateral trading system was restored, Europe could export its way out of the dollar shortage and out of its problems of postwar reconstruction, allowing the system of convertible currencies to be maintained.

The administration's free-trade orientation was supported by American industry, which saw export markets as vital to postwar prosperity and Britain's system of *imperial preference* as hindering its market access. War industry had boomed in the U.S. South and along the Pacific Coast; the growth there of aircraft and munitions manufacturers brought additional states into the free-trade camp.[10] There was more enthusiasm in the Congress for the trade-promoting thrust of the Bretton Woods Agreement than for its abstruse monetary provisions; without the emphasis placed on the former in the Articles of Agreement, it is unlikely that the Congress would have agreed to ratification.

Thus, the restoration of open, multilateral trade was to be the tonic that would invigorate the Bretton Woods System. The entire agreement was oriented toward this goal. As one author put it, "[To] provisions for the re-establishment of multilateral trade the Americans attached great importance, believing such re-establishment to be the main *raison d'etre* of the [International Monetary] Fund, equal in importance to its stabilization functions."[11] The Americans' insistence on a system of pegged exchange rates to be changed by substantial amounts only with IMF approval was intended to avoid the kind of international monetary turmoil that would hinder the reconstruction of trade. Along with negotiating the IMF Articles of Agreement, the delegates at Bretton Woods adopted a series of recommendations, including one to create a sister organization to be in charge of drawing down tariffs in the same way that the IMF was to oversee the removal of monetary impediments to trade. Article VIII prohibited countries from restricting payments on current account without Fund approval. Currencies were to be convertible at official rates, and no member was to adopt discriminatory currency arrangements. Article XIV

[10] Frieden 1988 emphasizes that disruptions to the European economy that enhanced the export competitiveness of U.S. manufacturers also worked to shift them into the free-trade camp.

[11] Scammell 1975, p. 115.

instructed countries to substantially remove monetary restrictions on trade within five years of the date the Fund commenced operations.

We will never know whether the rapid dismantling of controls on current-account transactions would have boosted European exports sufficiently to eliminate the dollar shortage. For instead of removing them, Western European countries maintained, and in some cases added to, their wartime restrictions. In Eastern Europe exchange controls were used to close loopholes that would have undermined state trading. Latin American countries used multiple exchange rates to promote import-substituting industrialization. While some countries made slow progress in removing monetary impediments to trade, others were forced to backtrack. Overall there was movement in a liberalizing direction, but the five-year transitional period stretched out to more than twice that length.

There are several explanations for this failure to liberalize at the anticipated pace. Sustaining a more liberal trading system would have required European countries to boost their exports, which in turn would have entailed a substantial depreciation of exchange rates to render their goods more competitive internationally. Governments resisted trade liberalization on the grounds that it would have worsened the terms of trade and lowered living standards. Import restrictions acted like tariffs; they turned the terms of trade in Europe's favor at the expense of the United States. A substantial worsening of the terms of trade and decline in living standards threatened to provoke labor unrest and disrupt the recovery process.[12] The IMF was aware that the par values submitted in 1945–46 implied that currencies would be overvalued if import restrictions were removed. While wartime inflation had proceeded much faster in Europe than in the United States, about half the exchange rates were as high against the U.S. dollar as they had been in 1939.[13] Rather than objecting, the Fund acceded to European claims that high exchange rates were necessary for domestic political reasons.[14]

Trade restrictions might be dismantled without creating unsustainable deficits or requiring substantial currency depreciation if government spending were cut and demand were reduced. If postwar governments had not attached priority to sustaining investment, the external constraint would not have bound

[12]I pursue this line of thought in my 1993 book. Sometimes the argument is phrased differently: namely, that the substantial devaluations that would have been required by the removal of controls would not have worked because higher import prices would have provoked wage inflation (see Scammell 1975, p. 142 and passim). But the point is the same—that workers would not have acquiesced to the substantial reductions in living standards implied by a real depreciation.

[13]This was argued at the time; see, for example, Metzler 1947.

[14]It did, however, press for devaluation in 1948–49.

so tightly.[15] Once again, domestic politics were the impediment to action. Where the Americans saw trade as the engine of growth, Europeans believed that investment was key. And curtailing investment, besides slowing recovery and growth, would be seen by European labor as reneging on the commitment to full employment.

Above all, efforts to liberalize trade were stymied by a coordination problem—by the need for European countries to act simultaneously. Countries could import more only if they exported more, but this was possible only if other countries also liberalized. The International Trade Organization (ITO) had been designed to cut this Gordian knot by coordinating the simultaneous reduction of tariffs and quotas. Hence, the failure of the United States to ratify the Havana Charter (the agreement to bring the ITO into being, finalized by the fifty-six countries participating in the United Nations Conference on Trade and Employment held in the Cuban capital) was a devastating blow. The agreement was squeezed between protectionists who opposed its liberal thrust and perfectionists who criticized the myriad exceptions from open trade extended to countries seeking to establish full employment, accelerate their economic development, or stabilize the prices of commodity exports.[16] Caught in the cross fire, the Truman administration declined to resubmit the charter to Congress in 1950.[17]

The General Agreement on Tariffs and Trade (GATT), thrust into the breach, made limited progress in its early years.[18] The first GATT round, in Geneva in 1947, led the United States to cut its tariffs by a third, but the other twenty-two contracting parties made minimal concessions. The second round at Annecy in 1949 involved no additional concessions by the twenty-three founding members. The third round (at Torquay in 1950–51) was a failure, the contracting parties agreeing on only 144 of the 400 items they had hoped to negotiate. The GATT's ambiguous status limited the scope for coordination with the IMF, complicating efforts to trade tariff concessions for the elimination of exchange controls. The IMF, for its part, did not see its place as arranging reciprocal concessions.

Thus, the kind of network externalities referred to in the preface to this book and emphasized in Chapter 2's analysis of the classical gold standard blocked a rapid transition to current-account convertibility. As long as other

[15] This is the conclusion of Milward 1984.

[16] The definitive autopsy of the Havana Charter is Diebold 1952.

[17] In a sense, the ITO charter was also a casualty of the cold war. Once conflict with the Soviets broke out, the Marshall Plan (whose second appropriation bill was under congressional consideration) and NATO took precedence.

[18] For details, see Irwin 1995.

countries retained inconvertible currencies, it made sense for each individual country to do so, even though all countries would have been better off had they shifted to convertibility simultaneously. The framers of the Bretton Woods Agreement had sought to break this logjam by specifying a schedule for the restoration of convertibility and by creating an institution, the IMF, to oversee the process. In the event, the measures they provided were inadequate.

Eventually, the industrial countries created the European Payments Union to coordinate the removal of current-account restrictions. In the meantime they suffered through a series of upheavals, notably Britain's 1947 convertibility crisis and the 1949 devaluations.

THE STERLING CRISIS AND THE REALIGNMENT OF EUROPEAN CURRENCIES

The inability of one country to restore convertibility without the cooperation of others was illustrated by Britain's attempt to do so in 1947. Inflation had not proceeded as rapidly in Britain as on the European continent, and it was not clear that sterling was overvalued on purchasing-power-parity grounds.[19] Nor was war-related destruction of infrastructure and industrial capacity as extensive as in many European countries. But as long as other European countries maintained high tariffs and quantitative restrictions, the scope for expanding exports was limited. The country found itself unable to penetrate other European markets sufficiently to generate the export revenues needed to support a convertible currency.[20]

Britain's attempt to restore convertibility was further complicated by its delicate financial condition. The country had emerged from World War II with a monetary overhang (the money supply having tripled between 1938 and 1947 but nominal GNP having only doubled, reflecting the use of price controls to bottle up inflation). Private and official holdings of gold and dollars had fallen by 50 percent. Foreign assets had been requisitioned, and controls on foreign investment had prevented British residents from replacing them. Between 1939 and 1945 the Commonwealth and Empire had accumulated sterling balances in return for supplying foodstuffs and raw materials to the British war machine. At the war's end, overseas sterling balances exceeded

[19] Again, this was Metzler's conclusion (1947).

[20] The United Kingdom's response was to cultivate closer trade relations with its Commonwealth and Empire (as described in Schenk 1994). This did not bridge the dollar gap, however.

£3.5 billion, or one-third of the United Kingdom's GNP. British gold and foreign-exchange reserves were barely half a billion pounds.

If the holders of overseas sterling attempted to rebalance their portfolios or to purchase goods in the dollar area, a fire sale of sterling-denominated assets would have followed. Shunning radical alternatives, such as the forced conversion of sterling balances into nonnegotiable claims, the British government sought to limit dollar convertibility to currently earned sterling, blocking existing balances through a series of bilateral agreements. But it was hard to know precisely how much sterling was newly earned, and incentives to evade the restrictions were strong.

Under the circumstances, the decision to restore convertibility in 1947 was the height of recklessness. It was an American decision, not a British one. In 1946 the United States extended Britain a $3.75 billion loan on the condition that the latter agree to restore current-account convertibility within a year of the loan's approval.[21] A prostrate United Kingdom had no choice. Convertibility was restored on July 15, 1947, nearly five years ahead of the deadline of the Bretton Woods Agreement.[22] Except for some previously accumulated balances, sterling became convertible into dollars and other currencies at the official parity of $4.03.

The six weeks of convertibility were a disaster. Reserve losses were massive. The government, seeing its reserves approaching exhaustion, suspended convertibility on August 20 with American consent. A loan that had been designed to last through the end of the decade was exhausted in a matter of weeks.

American insistence on the early resumption of convertibility was motivated by Washington's anxiety over imperial preference. Convertibility was the obvious way of guaranteeing American exporters a level playing field. In addition, American policymakers viewed Britain's restoration of convertibility as an important step toward the creation of an open, multilateral trading system. Sterling was the most important reserve and vehicle currency after the dollar. Other countries were more likely to restore convertibility if their sterling balances were convertible and served as international reserves. But, as

[21] An additional $540 million covered Lend-Lease goods already in the pipeline.

[22] Actually, convertibility was phased in. Toward the beginning of the year, the British authorities supplemented their bilateral clearing agreements with other countries with a system of transferable accounts. Residents of participating countries were authorized to transfer sterling among themselves, as well as to Britain, for use in current transactions. In February, transfers to residents of the dollar area were added. In return, participating countries had to agree to accept sterling from other participants without limit and to continue to restrict capital transfers. See Mikesell 1954.

they had when specifying the modest quotas and drawing rights of the Articles of Agreement, American officials underestimated the difficulty of the task.

The 1947 sterling crisis lifted the scales from their eyes. No longer would the United States be so insistent about the early restoration of convertibility; thereafter it acquiesced to European policies stretching out the transition. Acknowledging the severity of Europe's problem, the United States acceded to modest discrimination against American exports. And it followed up with the Marshall Plan. Aid had been under discussion in Washington, D.C., before Britain's abortive restoration of convertibility, and General George Marshall's Harvard speech announcing the plan preceded Britain's July 15 deadline by more than a month. But Marshall aid had not been approved by Congress: the sterling crisis, by highlighting the weakened condition of the European economies, undermined the arguments of its opponents.

Significant quantities of Marshall aid were finally transferred in the second half of 1948. Until then, Britain's position remained tenuous. And problems were by no means limited to the British Isles. France, Italy, and Germany, in each of which the political situation remained unsettled, suffered capital flight. France ran persistent dollar deficits, depleting its reserves and forcing devaluation of the franc from 119 to the dollar to 214 at the beginning of 1948. While trade with most European countries took place at this rate, proceeds of exports to the dollar area could be sold half at the official rate and half at the rate quoted in parallel markets. Given that the free rate was more than 300 francs, the effective exchange rate for transactions with the United States was 264 francs. Making the dollar more expensive was designed to encourage exports to the United States and discourage imports in order to replenish France's dollar reserves. But the policy created inefficiencies and disadvantaged other countries; it provided an incentive to shunt British exports to the United States through third countries, for example. These were precisely the kind of discriminatory multiple exchange rates frowned on by the framers of the Bretton Woods Agreement. Over the objections of the French executive director, who denied that the Articles of Agreement provided a legal basis for the action, the IMF declared France ineligible to use its resources. The French government, in humiliation, was forced to devalue again and unify the rate at 264.

Eventually, Marshall aid lightened the burden under which the recipients labored. The United States instructed European governments to propose a scheme for dividing the aid among themselves; they did so on the basis of consensus forecasts of their dollar deficits. The $13 billion provided by the United States over the next four years would suffice, it was hoped, to finance the dollar deficits that would be incurred as the recipients completed their reconstruction and made final preparations for convertibility.[23]

Hopes that trade with the dollar area would quickly return to balance were dashed by the 1948–49 recession in the United States. The recession depressed U.S. demands for European goods, causing the dollar gap to widen. While the recession was temporary, its impact on European reserves was not. What the United States gave with one hand, it took away with the other.

The recession provided the immediate impetus for the 1949 devaluations. However attractive the terms-of-trade gains associated with overvalued currencies and import controls, there were limits to their feasibility. World War II had altered equilibrium exchange rates, as World War I had before it.[24] This became evident when American imports from the sterling area fell by 50 percent between the first and third quarters of 1949. The sterling area, which produced the raw materials that constituted the bulk of U.S. imports, and not the United Kingdom itself, felt the brunt of the deterioration. But residents of other sterling area countries sought to maintain the customary level of imports from the dollar area by converting their sterling balances into dollars. Controls restricted but did not eliminate their ability to do so. As its reserves dwindled, Britain further tightened its controls and got other Commonwealth countries to do likewise. Still the drain of gold and dollars continued. Between July and mid-September, it exceeded $300 million. Devaluation followed on September 18.

This episode laid to rest the belief that the devaluation of a major currency could be acted on as if it were an item on a committee agenda. Article IV entitled the Fund to seventy-two hours' notice of a parity change. Although foreign governments and the IMF were informed that devaluation was coming, the Fund was notified of its magnitude only twenty-four hours in advance to minimize the danger that the information would leak to the markets. Although there was time to make preparations, it was not possible to engage in the kind of international deliberations envisaged in the Articles of Agreement.[25]

Twenty-three additional countries devalued within a week of Britain, seven subsequently. Most had already come under balance-of-payments pressure,

[23] To prevent the recipients from "double dipping" and loosening Washington's financial control, the United States made the extension of Marshall aid contingent on IMF agreement not to extend credit to the recipient governments.

[24] As Triffin (1964) put it, recourse to controls only "slowed down, or postponed, the exchange-rate readjustments which had characterized the 1920s, and bunched up many of them in September 1949" (p. 23).

[25] See Horsefield 1969, vol. 1, pp. 238–39.

and sterling's devaluation implied that their problem was likely to worsen. The only currencies that were not devalued were the U.S. dollar, the Swiss franc, the Japanese yen, and those of some Latin American and Eastern European countries.

The devaluations had the desired effects. That this was disputed at the time and is questioned today testifies to the distrust of exchange rate changes inherited from the 1930s. British reserve losses halted immediately, and the country's reserves tripled within two years. Other countries also improved their positions. The French were able to relax their exchange restrictions, liberalizing the right of travelers to take bank notes out of the country and of others to transact on the forward market. The U.S. current-account surplus dropped by more than half between the first half of 1949 and the first half of 1950. Devaluation was not the only contributing factor; the American recession ended in late 1949, and the Korean War broke out in 1950.[26] But the improvement of trade balances was greatest in countries that devalued by the largest amounts, suggesting that the 1949 realignment had separate, economically significant effects.

The dollar shortage, while moderated, was not eliminated. In the first half of 1950, the U.S. current-account surplus was still running at an annual rate of $3 billion. It was by no means clear that other countries, their reserves limited and their deficits substantial, could complete the transition to convertibility in two years. Intra-European trade was still smothered by a suffocating blanket of restrictions on current-account transactions. By 1950 the countries involved concluded that solving this problem required extraordinary international monetary measures.

THE EUROPEAN PAYMENTS UNION

Those extraordinary steps involved supplementing the IMF with a regional entity, the European Payments Union, or EPU, to deal with Europe's trade and payments problems. The EPU came into operation in 1950, initially for two years, although it was wound down only at the end of 1958. At one level it was a straightforward elaboration of the Bretton Woods model. Its members, essentially the countries of Western Europe and their overseas dependencies,

[26]The war had different effects on different economies: the sterling area, which was a net exporter of raw materials, benefited from the rise in the relative price of commodities it caused, while Germany, as a net importer of raw materials, suffered a deterioration in its terms of trade. This last point is emphasized by Temin 1995. It is contrary to much of the German literature, in which it is suggested that Germany benefited from the Korea boom.

reaffirmed their intention of moving simultaneously toward the restoration of current-account convertibility. They adopted a Code of Liberalization, which mandated the removal of restrictions on currency conversion for purposes of current-account transactions. In February 1951, less than a year after the EPU came into existence, all existing restrictions were to be applied equally to all participating countries, and members were to reduce their barriers by one-half from initial levels and then by 60 and 75 percent. This, then, was a more detailed if geographically limited version of the commitment of the Bretton Woods Agreement to remove all restrictions on current-account transactions.

Countries running deficits against the EPU would have access to credits, although they would have to settle with their partners in gold and dollars once their quotas were exhausted. Here too inspiration derived from the Articles of Agreement: the credits to which participating countries were entitled resembled the quotas and drawing rights of the Bretton Woods Agreement. Like IMF quotas, their availability could be subject to conditions. Nearly $3 billion in credits were outstanding when the EPU was terminated in 1958; this was equivalent to an increase in the quotas provided for by the Articles of Agreement of nearly 50 percent.

At another level, the EPU departed from the Bretton Woods model and challenged the institutions established there. By acceding to the Code of Liberalization, the United States acknowledged the unrealism of the Bretton Woods schedule for restoring current-account convertibility. By helping to provide additional balance-of-payments credits, it acknowledged the inadequacy of the quotas provided by the Articles of Agreement. By allowing EPU countries to reduce barriers to trade among themselves more quickly than they abolished restrictions on imports from America, it acceded to discrimination in trade. It acknowledged that the dollar shortage was the central monetary problem of the postwar period, notwithstanding Marshall aid.[27] European countries, by designing an institution for the pursuit of discriminatory policies, admitted what had gone unsaid at Bretton Woods: that the postwar international monetary regime was an asymmetric system in which the United States and the dollar played exceptional roles.

That the EPU was a departure from Bretton Woods was acknowledged in several ways. Responsibility for clearing payments was vested with the Bank for International Settlements, a holdover from the 1930s, not the IMF.

[27] Thus, the Second Annual Report of the OEEC acknowledged that Europe's dollar deficits would not be reduced to the point where monetary restrictions could be eliminated on a nondiscriminatory basis by the end of the Marshall Plan. Organisation for European Economic Cooperation 1950, pp. 247–51.

The managing board, which oversaw the EPU's operation, was housed in Basel, not Washington, D.C. The Code of Liberalization, rather than being appended to the Articles of Agreement, was a construct of the Organisation for European Economic Cooperation, or OEEC, which had been created to facilitate the division of Marshall aid. In effect, oversight of the restoration of convertibility and the rehabilitation of trade was withdrawn from the Bretton Woods institutions, whose authority was diminished as a result.

If one factor can explain these departures from the path cleared at Bretton Woods, it was the crises of 1947 and 1949. These episodes made it impossible for the United States to deny the severity of postwar adjustment problems. The advent of the cold war cemented its change of heart. The USSR had been present at Bretton Woods, even if its delegates were active mainly in after-hours drinking sessions. It had not yet established Eastern Europe as its sphere of influence or emerged as a threat to the political stability of the West. But by 1950 the cold war was under way and the Soviet Union had refused to assume the obligations of an IMF member. This left the United States more willing to countenance discrimination in trade if doing so facilitated recovery and economic growth in Western Europe.

The authority of the Bretton Woods institutions was weakened not just by the stillbirth of the ITO but by the decision of the IMF and World Bank to distance themselves from postwar payments problems. Although the Bank extended more credit to Europe than to any other continent in its first seven years, its total European commitments between May of 1947, when its first loan was made, and the end of 1953, a period that bracketed the Marshall Plan, amounted to only $753 million, or little more than 5 percent of Marshall aid.[28] Drawings on the IMF between 1947 and 1951, at $812 million, were scarcely larger. The Fund had been created to oversee the operation of convertible currencies and to finance temporary payments imbalances; it was slow to adapt to a world of inconvertibility and persistent payments problems. It acceded to U.S. demands that it withhold finance from countries receiving Marshall aid, to prevent governments from undermining U.S. efforts to control their financial affairs. Even after Britain's 1947 experiment had demonstrated the need for extensive support, it did not enlarge the resources available to countries that restored convertibility. *Stand-by arrangements*, inaugurated in 1952, simplified access to Fund resources but did not augment

[28]The World Bank made loans to Denmark, France, Luxembourg, and the Netherlands to finance imports of raw materials and capital goods from the dollar area. But with few funds of its own (the United States being the only country to pay in capital), the World Bank depended for liquidity on its ability to float loans on the U.S. capital market.

them. For all these reasons, the Fund proved incapable of offering assistance on the scale required to deal with postwar dislocations.

PAYMENTS PROBLEMS AND SELECTIVE CONTROLS

Britain, France, and Germany had long been at the center of European monetary affairs. Never was this truer than in the 1950s, although the three countries and their currencies had fallen into the shadow of the United States and the mighty dollar.

In all three countries, the Second World War, like the First, strengthened the position of labor, rendering labor-based parties of the Left a force to be reckoned with. As they had after World War I, labor's spokesmen pressed for higher wages, higher taxes on wealth, and expanded social programs. To this list were now added demands to control interest rates, capital flows, prices, and rents and to expand the range of government activities. An accommodation with labor was vital if Europe was to avoid political and workplace disruptions to its recovery and growth.

The process by which this settlement was reached was complex. In France and Italy, for example, the United States provided encouragement by making Marshall aid conditional on the exclusion of Communist parties from government. But the critical steps were taken by the Europeans themselves.[29] Socialist parties moderated their demands in order to broaden their electoral base. Workers accepted the maintenance of private property in return for an expanded welfare state. They agreed to moderate their wage demands in return for a government commitment to full employment and growth.

From the perspective of balance-of-payments adjustment, the commitment to growth and full employment was key. The instrument used to eliminate external deficits under the gold standard had been increased interest rates.[30] A higher central bank discount rate placed upward pressure on the entire range of interest rates, depressing inventory investment and capital formation. A declining level of activity reduced the demand for imports at the expense of growth and employment at home. Any government's vigorous use of

[29] Probably the best introduction to the relevant literature is Maier 1987. Esposito 1994 is expressly concerned with the relative importance of U.S. policy and indigenous factors in Europe's postwar political settlement.

[30] Again, this statement applies to countries whose central banks could influence domestic rates. Small open economies whose domestic-currency-denominated assets were perfect substitutes for foreign assets had no control of their interest rates and hence could make little use of the instrument. Canada is an example (see Dick and Floyd 1992).

this instrument would have been regarded as an act of bad faith. Sacrificing growth and employment by raising interest rates in order to restore external balance would have jeopardized the accommodation between capital and labor.[31]

Hence, European countries, when experiencing balance-of-payments problems, could not adjust by raising interest rates. Their only recourse was to implement exchange controls. The fact that these restrictions were imposed in concert with the EPU rendered the policy acceptable to their trading partners. That controls were exceptions to an ongoing liberalization process and that their imposition was subject to EPU approval lent credibility to declarations that they were temporary.[32] It meant that controls were applied simultaneously to imports from all EPU countries, minimizing distortions.

Germany suffered a balance-of-payments crisis in the second half of 1950, the Korean War having worsened its terms of trade by raising the relative prices of imported raw materials. In the first five months of the EPU's operation (July–November 1950), the country exhausted its quota.[33] The German government then negotiated a special arrangement with the EPU. It reimposed exchange controls and received a special $120 million credit. In return, the government affirmed its commitment to the prevailing exchange rate and agreed to increase turnover taxes and reform personal and corporate income taxes in order to restrict consumption. Although import restrictions were not the only device used to eliminate external deficits, they were an important part of the package. Through their application, the crisis was surmounted. Germany's position strengthened sufficiently for it to repay the special EPU credit by the middle of 1951. Growth continued unabated, and Germany shifted to permanent surplus within the EPU.

[31]This description of the postwar settlement is stylized. It neglects variations across countries in the terms and effectiveness of the postwar social pact. While priority was attached to growth and full employment in Britain and France, the fragmentation of labor relations in both countries limited the effectiveness of labor-management collaboration. In Germany, labor's bargaining power was diminished by the presence of American troops and the influx of workers from the East. But even though Germany did not reach full employment until the end of the 1950s, the low living standards and levels of industrial production of the immediate postwar years still made the commitment to growth a priority.

[32]Credibility was further buttressed by the fact that the United States, though not a participant in the EPU, was a member of its managing board, having contributed $350 million in working capital to finance its operation. Hence, countries that failed to adhere to their bargain with the managing board risked jeopardizing their access to U.S. aid.

[33]That quota had been calibrated on the basis of 1949 exports and imports, which were dwarfed by the much higher level of trade that followed once the full effects of the 1948 monetary reform were felt.

The EPU managing board made the $120 million credit conditional on German reaffirmation that the exchange controls were temporary. The government had been tempted to reverse its trade liberalization measures unilaterally; Per Jacobsson, a special adviser to the EPU, convinced officials to mark time until import curbs could be reimposed in concert with the EPU. Moreover, the receipt of EPU credits allowed Germany's economics minister, Ludwig Erhard, to force through tax and interest-rate increases over the objections of the chancellor, Konrad Adenauer, who feared that these would damage the prospects for growth and social peace.[34]

Britain's crises and efforts to cope can be described in similar terms. Once the commodity boom caused by the Korean War tapered off and the revenues of the sterling area declined, a payments problem emerged.[35] In late 1951 Commonwealth finance ministers agreed to tighten controls on imports from the dollar area and to deviate from the liberalization schedule laid down by the OEEC code. Sterling recovered and it soon became possible to relax the controls.

As British economic growth gained vigor, the authorities reluctantly resorted to Bank rate to regulate the balance of payments. Although the annual average unemployment rate declined to 1.8 percent in 1953 and did not surpass that level until 1958, allowing the authorities to alter interest rates without exposing themselves to the accusation that they were causing unemployment, they remained reluctant to utilize the instrument. The result was the British policy of "Stop-Go," which involved cutting rates, inflating consumer demand, and allowing incomes to rise, especially with the approach of elections, followed by a rise in rates to restrict demand, generally too late to avert a crisis.

French experience in the 1950s also illustrates the importance of the trade-restriction instrument for balance-of-payments adjustment. Where Germany experienced a single payments crisis at the beginning of the decade, France endured a series of crises. The common factor in these episodes was deficit spending. Military expenditures in Indochina and elsewhere were superimposed on an ambitious program of public investment and on generous entitlement programs and housing subsidies. As in the 1920s, the country lacked a political consensus on how to pay for these programs. A third of the electorate voted for a Communist Party that favored increased taxes on the wealthy and resisted spending cuts. The remaining parties of the Fourth Republic formed a series of

[34] See Kaplan and Schleiminger 1989, pp. 102–4.

[35] That the government lost the October 1951 election, Iran nationalized British oil holdings, and repayment of the American and Canadian loans came due all served to exacerbate the problem.

short-lived governments, none of which proved capable of solving the fiscal problem. As a result, the financial consequences of the government's ambitious modernization program spilled over into balance-of-payments deficits.

The consequences became apparent in 1951. Expenditure on the war in Indochina was rising. Payments deficits depleted the reserves of France's stabilization fund and forced heavy utilization of its EPU quotas. In response, the government tightened import restrictions and extended tax rebates to exporters. It suspended the measures mandated by the OEEC Liberalization Code. The tighter import regime, together with financial assistance from the United States, allowed the crisis to be surmounted.

The removal of current-account restrictions under the OEEC code resumed in 1954, but military expenditures rose again in 1955–56 in response to unrest in Algeria and the Suez crisis. The Socialist government that took office in 1956 introduced an old-age pension scheme and increased other expenditures. France lost half its reserves between the beginning of 1956 and the first quarter of 1957. Again, import restrictions were tightened. Importers were required to deposit 25 percent of the value of their licensed imports in advance. In June 1957 the import deposit requirement was raised to 50 percent, and France's adherence to the OEEC code was suspended once more. The government obtained an IMF credit and utilized its position with the EPU.

Although these measures provided breathing space, they did not eliminate the underlying imbalance. In August, in a step tantamount to devaluation (but one that did not require consultation with the IMF), a 20 percent premium was added to purchases and sales of foreign exchange, with the exception of those associated with imports and exports of certain primary commodities. Two months later, the measure was generalized to all merchandise. In return for liberalizing import controls, the government obtained $655 million in credits from the EPU, the IMF, and the United States.

But until the budgetary problem was addressed, the respite was only temporary. By the summer of 1957, this reality could no longer be denied. As it had during the "the battle of the franc" in 1924, public frustration with perpetual crisis eventually broke down resistance to compromise. A new Cabinet was formed with the economically conservative Felix Gaillard as finance minister. Gaillard then became prime minister and submitted to the Chamber of Deputies a budget that promised to significantly reduce the deficit. But, again as in 1924, the political will to sustain budget balance was in doubt. The situation in Algeria continued to deteriorate, and strikes broke out in the spring of 1958.[36]

[36]Workers complained that they were being forced to bear the costs of the nation's overseas commitments. See Kaplan and Schleiminger 1989, p. 281.

The crisis receded only when the war hero Charles de Gaulle formed a government and returned the financially orthodox Antoine Pinay to the Finance Ministry.[37] This made clear that the austerity measures would not be reversed. A committee of experts then recommended further increases in taxes and reductions of government subsidies. Although de Gaulle was unwilling to accept all the expenditure cuts it proposed, he agreed to raise taxes and limit the budget deficit. The committee of experts, along with the United States and France's EPU partners, demanded that the country also restore its commitment to the OEEC code. To make this possible, the franc was devalued again, this time by 17 percent.

Together, devaluation and fiscal retrenchment had the desired effect. France's external accounts swung from deficit to surplus, and in 1959 the country added significantly to its foreign reserves. This permitted it to liberalize 90 percent of its intra-European trade and 88 percent of its dollar trade.[38]

The importance of coordinating devaluation and fiscal correction, thereby addressing the sources of both internal and external imbalance, was a key lesson of the French experience. Import controls by themselves could not guarantee the restoration of equilibrium. As in Germany, they had to be accompanied by monetary and fiscal action. And retrenchment had to be cemented by political consolidation, as had also been the case in the 1920s. Until then, changes in the stringency of import restrictions were the principal instrument through which the exchange rate was defended.

CONVERTIBILITY: PROBLEMS AND PROGRESS

These periodic crises should not be allowed to obscure the progress made toward the restoration of equilibrium. Yet many otherwise perceptive observers continued to see the dollar gap as a permanent feature of the postwar world. Their perceptions colored by Europe's devastation and America's industrial might, they believed that U.S. productivity growth would continue to outstrip that of other countries. The United States would remain in perennial surplus, consigning its trading partners to perpetual crisis.[39]

[37] Readers will recognize the parallels with the 1926 Poincaré stabilization, down to the extended fiscal deadlock, the formation of a new government by a charismatic leader, and the appointment of a committee of experts.

[38] See Kaplan and Schleiminger 1989, p. 284.

[39] For a sampling of pessimistic appraisals of Europe's postwar prospects, see Balogh 1946, 1949; Williams 1952; and MacDougall 1957.

No sooner were their studies warning of this dire scenario published than the dollar gap disappeared. As growth resumed in Europe and Japan, their respective trade balances strengthened. Europe became an attractive destination for investment by American firms. U.S. military expenditures abroad and bilateral foreign aid, coming on the heels of the Marshall Plan, contributed an additional $2 billion a year to the flow. It was the United States, and not the other industrial countries, that lapsed into persistent deficit.

The redistribution of reserves from America to the rest of the world laid the basis for current-account convertibility. In 1948 the United States had held more than two-thirds of global monetary reserves; within a decade its share had fallen to one-half. On December 31, 1958, the countries of Europe restored convertibility on current account.[40] The IMF acknowledged the new state of affairs in 1961 by declaring countries in compliance with Article VIII of the Articles of Agreement (see Figure 4.1).

Operating a system of pegged exchange rates between convertible currencies required credit to finance imbalances, as the framers of the Bretton Woods Agreement had recognized. The greater the reluctance to adjust the peg and to raise interest rates and taxes, the larger the requisite credits. And the more rapid the relaxation of capital controls, the greater the financing needed to offset speculative outflows. This was the context for the debates over *international liquidity* that dominated the 1960s. Weak-currency countries lobbied for more generous IMF quotas and increases in international reserves. Strong-currency countries objected that additional credits encouraged deficit countries to live beyond their means.

The situation was complicated by the fact that the Bretton Woods System, like the gold standard before it, generated its own liquidity. As they had under the gold standard, governments and central banks supplemented their gold reserves with foreign exchange. Given the dominant position of the United States in international trade and finance and America's ample gold hoard, they did so mainly by accumulating dollars. The United States could run payments deficits in the amount of foreign governments' and central banks' desired acquisition of dollars. The United States might limit this amount by raising interest rates, making it costly for foreign central banks to acquire dollars. Or by exercising inadequate restraint, it might flood the international system with

[40]The terms of intra-EPU settlements had already been hardened starting in 1954, making the currencies of member countries effectively convertible for transactions within Europe. Monetary restrictions on trade had been loosened under the provisions of the OEEC code. But it was only when the foreign-exchange markets opened for business in January 1959, with the major currencies fully convertible for current-account transactions, that the Bretton Woods System can be said to have come into full operation.

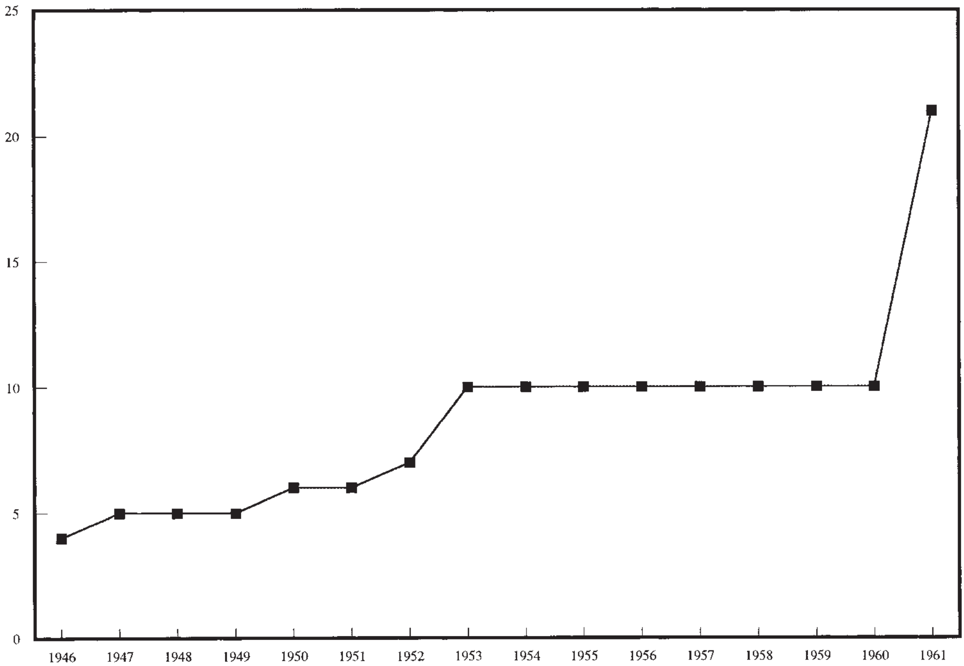

Figure 4.1. Number of IMF Members that Had Accepted Article VIII, 1946–61. *Source*: International Monetary Fund, *Annual Report on Exchange and Trade Restrictions*, various years.

liquidity. Either way, the system remained dependent on dollars for its incremental liquidity needs.

This dependence undermined the symmetry of the international monetary system. The Bretton Woods Agreement may have directed the United States to declare a par value against gold while permitting other countries to declare par values against the dollar, but there was a presumption that the system would grow more symmetric with time. The scarce-currency clause was supposed to ensure adjustment by surplus as well as deficit countries. And once Europe completed its recovery, IMF quotas were supposed to satisfy the world's demand for liquidity. Instead, the system grew less symmetric as the dollar solidified its status as the leading reserve currency. We might call this the de Gaulle problem, since the French president was its most prominent critic.

The historical consistency of the French position was striking.[41] Since the Genoa Conference in 1922, France had opposed any scheme conferring special

[41] This is documented by Bordo, Simard, and White 1994.

status on a particular currency. That Paris was never a financial center comparable to London or New York limited the liquidity of franc-denominated assets and hence their attractiveness as international reserves; if there was to be a reserve currency, it was unlikely to be the franc, in other words. In the 1920s and 1930s, as we saw in Chapter 3, France's efforts to liquidate its foreign balances in order to enhance the purity of the pure gold standard had contributed to the liquidity squeeze that aggravated the Great Depression. De Gaulle's criticism of America's "exorbitant privilege" and his threat to liquidate the French government's dollar balances worked in the same direction.[42]

A further problem was the Triffin dilemma. Robert Triffin, Belgian monetary economist, Yale professor, and architect of the EPU, had observed as early as 1947 that the tendency for the Bretton Woods System to meet excess demands for reserves through the growth of foreign dollar balances made it dynamically unstable.[43] Accumulating dollar reserves was attractive only as long as there was no question about their convertibility into gold. But once foreign dollar balances loomed large relative to U.S. gold reserves, the credibility of this commitment might be cast into doubt. U.S. foreign monetary liabilities first exceeded U.S. gold reserves in 1960, U.S. liabilities to foreign monetary authorities in 1963. If some foreign holders sought to convert their reserves, their actions might have the same effect as a queue of depositors forming outside a bank. Others would join for fear of being denied access. Countries would rush to cash in their dollars before the United States was forced to devalue.[44]

[42] Jacques Rueff, who had been financial attaché in the French embassy in London between 1930 and 1934 and a steadfast opponent of the gold-exchange standard, was head of the commission of experts that helped to frame de Gaulle's fiscal and monetary reform package in 1958. In both the 1930s and the 1960s, Rueff and his followers in the French government argued that the gold-exchange standard permitted reserve-currency countries to live beyond their means. This produced periods of boom and bust when the reserve-currency countries first became overextended and then were forced to retrench. (This interpretation of interwar events is discussed in Chapter 3). The solution was to restore a pure gold standard that promised to impose continuous discipline. Rueff published a series of articles, most notably in June 1961, that pointed to parallels between international monetary developments in 1926–29 and 1958–61, two instances when European countries accumulated the currencies of the "Anglo-Saxon countries" and inflation had accelerated in the United Kingdom and the United States. He called for the liquidation of the foreign-exchange component of the Bretton Woods System and a return to a more gold-standard-like system. See Rueff 1972.

[43] See Triffin 1947. Triffin repeated his warning at the beginning of Bretton Woods convertibility (Triffin 1960), and it was echoed by other observers (Kenen 1960).

[44] Triffin's fear was that the United States, to fend off the collapse of the dollar's $35 gold parity, would revert to deflationary policies, starving the world of liquidity. To defend their currencies, other countries would be forced to respond in kind, setting off a deflationary spiral like

It is apparent that the de Gaulle and Triffin problems were related. De Gaulle was a large creditor of the U.S. Treasury threatening to liquidate his balance. This was precisely the kind of development that threatened to destabilize the dollar, as Triffin had warned.[45]

SPECIAL DRAWING RIGHTS

The logical response was to substitute other forms of international liquidity. The problem to which this was a solution was not a global liquidity shortage but the need to substitute a new reserve asset for the dollar in order to prevent the process described by Triffin from destabilizing the Bretton Woods System.[46] As mentioned above, this was favored by weak-currency countries and opposed by their strong-currency counterparts. Discussions were complicated by the fact that the dollar was both weak and strong. It was strong in that it remained the principal reserve currency and that the creation of alternative forms of liquidity threatened to diminish its role. It was weak in that the growth of foreign dollar balances sowed doubts about its convertibility; the development of alternative liquidity sources promised to slow the growth of U.S. external monetary liabilities and therefore to contain the pressures undermining the currency's stability. Given these conflicting considerations, it is no surprise that the United States was less than consistent in its approach to the problem.

Negotiations over the creation of additional reserves were initiated by the *Group of Ten (G-10)*, the club of industrial countries that viewed itself as the

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that of the 1930s. In fact, the Johnson and Nixon administrations continued to allow the supply of dollars and the rate of U.S. inflation to be governed by domestic considerations, rendering an excessive supply of dollars and inflation, not deflation, the actual problems. The United States attempted to bottle up the consequences by establishing the Gold Pool with its European allies and encouraging the latter to refrain from converting dollars into gold. Eventually, however, conversions of dollars into gold by the private markets undermined the currency's position. See Williamson 1977 and De Grauwe 1989.

[45] Although the United States had foreign assets as well as foreign liabilities, the maturity imbalance between the assets and liabilities exposed it to the danger of the international equivalent of a bank run. Neglect of the bank-run problem was the flaw of the view of Emile Deprés and Charles Kindleberger that U.S. payments deficits were benign because the country was simply acting as banker to the world, borrowing short and lending long.

[46] One can imagine that markets could have solved this problem on their own by elevating other countries to reserve-currency status. But the prevalence of controls and the narrowness of markets prevented currencies like the deutsche mark, franc, and yen from acquiring a significantly expanded reserve role. The only currency with a sufficiently wide market, sterling, became progressively less attractive as a form of reserves for reasons explained elsewhere in this chapter.

successor to the U.S. and British delegations that had dominated the Bretton Woods negotiations. In 1963 it formed the Group of Deputies, a committee of high officials, which recommended increasing IMF quotas. It proposed allocating reserves to a small number of industrial economies and making the latter responsible for extending conditional credit to other countries.

While this approach seemed logical enough to officials of the industrial countries, they had not reckoned with the emergence of the Third World.[47] Developing countries participated fully in the Bretton Woods System: many of them maintained pegged exchange rates for long periods behind the shelter of trade restrictions and capital controls. Not unlike experience under the gold standard, they were subject to exceptionally severe balance-of-payments shocks, which they met by devaluing more frequently than was the practice in the industrial world.[48] Having gained in numbers and formed organizations of their own, Third-World leaders countered that their balance-of-payments financing needs were at least as great as those of the industrial countries. They argued that the additional resources should be allocated directly to the countries in the greatest need (namely, themselves). They viewed the G-10 as an inappropriate forum for resolving the issue. Efforts to increase the level of reserves thus became bound up with the issue of their distribution.

IMF quotas amounted to $9.2 billion at the end of 1958, up slightly from the original $8.8 billion as a result of the admission to the Fund of countries that had not been represented at Bretton Woods (as well as the nonparticipation of the Soviet Union and the withdrawal of Poland). In acknowledgment of the expansion of the world economy since 1944, a 50 percent increase in quotas was agreed to in 1959.[49] But since the dollar value of world trade had more than doubled since 1944, this did not restore Fund resources to even the modest levels, in relation to international transactions, of the White Plan. In 1961 the ten industrial countries that would subsequently form the G-10 agreed to lend up to $6 billion of their currencies to the Fund through the *General Arrangements to Borrow*. But this was not an increase in Fund quotas; it merely augmented supplies of particular currencies that the Fund could make available, and access to these funds was conditioned on terms satisfactory to the G-10 finance ministers.[50] Fund quotas were raised in 1966, but by

[47]This is a theme of the introduction to Gardner 1969 and of Eichengreen and Kenen 1994.

[48]Edwards (1993, p. 411) identifies sixty-nine substantial devaluations between 1954 and 1971 in some fifty developing countries.

[49]The United States, then the strong-currency country, had opposed increased quotas in the first two quinquennial reviews.

[50]See Horsefield 1969, vol. 1, pp. 510–12.

only 25 percent, because Belgium, France, Italy, and the Netherlands objected to larger increases.[51]

Ultimately, a solution was found in the form of the First Amendment to the Articles of Agreement, which created *special drawing rights* (SDRs). The conflict between industrial and developing countries, both of which insisted that they be allocated a disproportionate share of the additional resources, found a straightforward solution in the decision to increase all quotas by a uniform percentage. But the conflict between weak- and strong-currency countries within the industrial world proved more difficult to resolve. The weak-currency countries desired additional credits for balance-of-payments settlement purposes, while the strong-currency countries feared the inflationary consequences of additional credits. The United States initially opposed the creation of an SDR-like instrument for fear of diminishing the dollar's key-currency role. At the IMF annual meetings in 1964, the French, for whom the dollar's asymmetric position was a particular bone of contention, proposed creating such an instrument, but the idea was torpedoed by the United States. De Gaulle, never one to shy away from provocation, then proposed returning to the gold standard as the only remaining way of restoring symmetry to the international system, and the Bank of France accelerated its conversion of dollars into gold.

These veiled threats hastened the transformation of official opinion in the United States. It was five years since U.S. external dollar liabilities had first exceeded the country's gold reserves and since the price of gold in London had risen significantly above the level at which the U.S. Treasury pegged it in New York, signaling that traders attached a nonnegligible probability to dollar devaluation. The realization having dawned that the country's international monetary position was no longer impregnable, the United States reversed itself in 1965, siding with the proponents of an SDR allocation. The details were finally agreed upon at the Fund's Rio de Janeiro meeting in 1967. France's pound of flesh was a proviso that the scheme could be activated only when there existed a "better working" of the adjustment process—when the United States eliminated its balance-of-payments deficit, in other words.

By the time the United States had demonstrated the requisite payments surplus in 1969, permitting the first SDR allocation to be disbursed in 1970, the problem was no longer one of inadequate liquidity. The U.S. payments deficits of the 1960s had inflated the volume of international reserves, and there was good reason to think that the restrictive monetary policy of 1969 was only temporary. Liquidity was augmented further by the increasingly

[51] They were raised a third time in 1970 by about 30 percent.

expansionary monetary policies of the other industrial countries. Still more liquidity, in the form of an SDR allocation, was not what was needed in this inflationary environment. The inevitable delays built into negotiations meant that policymakers were solving yesterday's problems with counterproductive implications for today's.

Would these instabilities have been averted by a more generous SDR allocation at an earlier date? To be sure, had liquidity needs been met from such sources, there would have been no need to augment the stock of official dollar balances. The United States, to defend the dollar, would have been forced to rein in its deficits, solving both the Triffin and de Gaulle problems. The question is whether the country possessed instruments for doing so. Given U.S. military commitments and the pressure to increase spending on social programs, expenditure-reducing policies were not available. External imbalances could be addressed only by adjusting the supposedly adjustable peg, something that neither the United States nor other countries were yet willing to contemplate.

DECLINING CONTROLS AND RISING RIGIDITY

Meanwhile, the limitations of the Bretton Woods adjustment mechanism were underscored by the removal of trade restrictions. With the restoration of current-account convertibility, it was no longer possible to tighten import licensing requirements.[52] One's trading partners might still be induced to reduce their tariffs, a strategy the United States followed by proposing a new round of GATT negotiations when its trade balance deteriorated in 1958. But as indicated by the delay of four years until the conclusion of the Dillon Round in 1962, this mechanism hardly operated with the speed needed to cope with speculative pressures.

Governments could still attempt to correct an imbalance by manipulating the capital account. Controls on capital movements could be tightened. Measures such as the U.S. *Interest Equalization Tax*, which discouraged residents from investing in foreign bonds, might be deployed. But attempts to discourage capital outflows bought only time. They did not remove the underlying problem that had prompted the tendency for capital to flow out in the first place. In other words, they provided some temporary autonomy for domestic policy but did not provide an effective adjustment mechanism.

[52]However, there were echoes of the 1950s strategy in the 10 percent surcharge on customs and excise duties imposed by Britain in 1961, its 15 percent surcharge in 1964, and President Nixon's 10 percent import surcharge in 1971.

One measure of the effectiveness of capital controls is the size of covered interest differentials (interest-rate differentials adjusted for the forward discount on foreign exchange). Maurice Obstfeld computed these for the 1960s, finding that they were as large as two percentage points for the United Kingdom and larger than one percentage point for Germany.[53] Differentials of this magnitude, which cannot be attributed to expected exchange rate changes, confirm that capital controls mattered. Richard Marston compared covered interest differentials between Eurosterling (offshore) rates and British (onshore) rates. (The advantage of this comparison is that it eliminates country risk—the danger that one country is more likely to default on its interest-bearing obligations.) Between April 1961, when Eurosterling interest rates were first reported by the Bank of England, and April 1971, the beginning of the end for the Bretton Woods System, the differential averaged 0.78 percent. Marston concludes that controls "clearly . . . had a very substantial effect on interest differentials."[54]

The implications for the balance of payments were explored in a 1974 study by Pentti Kouri and Michael Porter.[55] Kouri and Porter found that roughly half of a change in domestic credit was neutralized by international capital flows in the cases of Australia, Italy, and the Netherlands, and on the order of two-thirds to three-quarters in the case of Germany. Their results suggested that although international capital flows responded to changes in credit conditions, there was still some scope for autonomous monetary policy. Central banks could still alter monetary conditions without seeing domestic credit leak abroad dollar for dollar. Given the reluctance of governments to change the exchange rate or compress domestic demand, the use of controls to influence capital flows was the only mechanism left to reconcile internal and external balance in the short run.

To be sure, with the restoration of current-account convertibility, capital controls became more difficult to enforce. It was easier to over- and under-invoice trade and to spirit funds abroad. The growth of multinational corporations created yet another conduit for capital-account transactions, as did the development of the Euro-currency markets. Once controls on banking transactions in Europe were relaxed, London-based banks began to accept dollar deposits, bidding away funds from American banks whose deposit rates were capped by Regulation Q. Euro-dollar depositors, when they began to fear for the stability of the dollar, could exchange their balances for Euro–deutsche marks. Although the volume of Euro-currency transactions was limited, controls on capital

[53] See Obstfeld 1993b. Aliber 1978 and Dooley and Isard 1980 undertake similar analyses and reach similar conclusions.

[54] Marston 1993, p. 523.

[55] Kouri and Porter 1974.

movements enforced by the U.S. government at the border were less effective to the extent that a pool of dollars already existed offshore.

Why countries were so reluctant to devalue in response to external imbalances is perhaps the most contentious question in the literature on Bretton Woods. In fact, the architects of the system, worried about the disruptions to trade that might be caused by frequent parity adjustments, had sought to limit them. Requiring countries to obtain Fund approval before changing their parities discouraged the practice because of the danger that their intentions might be leaked to the market. Frequent small devaluations and revaluations, which could be taken without consulting with the Fund, might only be destabilizing; they would be viewed as too small to remove the underlying disequilibrium but as proof that the authorities were prepared to contemplate further exchange rate changes, on both grounds exciting capital flows. This was the lesson drawn from the German and Dutch revaluations in 1961. And permitting a country to devalue by a significant amount only if there were evidence of a fundamental disequilibrium precluded devaluation in advance of serious problems. The possibility that mounting pressures might not ultimately constitute a fundamental disequilibrium forced governments to reiterate their commitment to the prevailing exchange rate in order to avoid provoking capital outflows and exacerbating existing difficulties. To reverse course would be a source of serious embarrassment.[56]

The inflexibility of exchange rates under this system of "managed flexibility" followed from these perverse incentives. The problem intensified with the growth of capital mobility and increasing porousness of capital controls. External weakness could unleash a torrent of capital outflows. A government had to make even stronger statements and commit to even more draconian steps to defend its currency. To devalue was to admit to an all-too-visible failure.[57]

[56]As Akiyoshi Horiuchi (1993, p. 102) writes of Japan, which suffered balance-of-payments problems until the mid-1960s, the government "refused to try to restore the external balance of payments by devaluing the yen for fear that devaluation might be regarded as a public admission of some fatal errors in its economic policies." As John Williamson (1977, p. 6) put it, "exchange rate changes were relegated to the status of confessions that the adjustment process had failed." Richard Cooper's (1971) evidence that currency devaluation in developing countries often was followed by the dismissal of the finance minister illustrates that this embarrassment could have significant costs. Revaluation was less embarrassing for the strong-currency countries, of course. But it penalized producers of traded goods, a concentrated interest group, and therefore had political costs. It could not be resorted to with a freedom that would have resolved the dilemmas of Bretton Woods.

[57]Leland Yeager, writing in 1968, emphasized governments' reluctance to adjust exchange rates "for fear of undermining confidence and aggravating the problem of speculation." See Yeager 1968, p. 140.

There was also not much scope for increasing interest rates and applying restrictive fiscal measures to rein in payments deficits. The postwar social contract, in which workers moderated their wage demands as long as capitalists invested their profits, remained attractive only as long as the bargain delivered high growth. Thus, John F. Kennedy ran for president in 1960 on a promise of 5 percent growth. In the 1962 British general election, both parties promised 4 percent growth.[58] Commitments such as these left little room for expenditure-reducing policies.

All this makes the survival of the Bretton Woods System until 1971 something of a surprise. A large part of the explanation is international cooperation among governments and central banks.[59] Much as regime-preserving cooperation supported the gold standard in times of crisis, international support for its key currencies allowed Bretton Woods to stagger on. Central bank governors and officials gathered monthly at the BIS in Basel. Working Party 3 of the OECD's Economic Policy Committee provided a forum for the exchange of information and advice.[60] In 1961, responding to pressure on sterling associated with Germany's March 4 revaluation of the deutsche mark, the leading central banks agreed to *swap arrangements*, whereby they would temporarily retain their balances of weak currencies rather than demanding their conversion into gold. In 1961 Britain received nearly $1 billion in support under the provisions of these arrangements. In 1964, when sterling again came under attack, the Federal Reserve Bank of New York offered Britain a special $3 billion line of credit. In effect, the kind of central bank cooperation that had been characteristic of the 1920s was revived after a hiatus of more than thirty years.

Other examples of cooperation include the General Arrangements to Borrow and German and Swiss bans on interest on foreign deposits.[61] The *Gold Pool* established in November 1961 by Britain, Switzerland, and the members of the *European Economic Community* (EEC) can also be understood in this light. By 1961 the ratio of dollars to gold outside the United States had risen above levels that would be willingly held at $35 per ounce of gold. The relative price of the dollar began to fall (in other words, the market price of gold began to rise above $35). The incentive for central banks to demand gold for dollars from the U.S. Treasury mounted accordingly.

[58] For more discussion of this point, see James 1995.

[59] While this is a theme that runs through the present book, its particular relevance for the Bretton Woods period is emphasized by Fred Block (1977).

[60] On these initiatives, see Roosa 1965 and Schoorl 1995.

[61] Germany banned interest only on new foreign deposits, while the Swiss actually imposed a 1 percent tax on foreign deposits.

The industrial countries therefore created the Gold Pool, an arrangement under which they pledged to refrain from converting their dollar exchange and sold gold out of their reserves in an effort to relieve the pressure on the United States.[62]

Foreign support was not costless for the governments and central banks extending it, for they had no assurance of prompt repayment of their short-term credits.[63] They were reluctant to offer support unless the countries receiving it committed to adjust, assuring them that support would be limited in magnitude and that it would produce the desired results. When the United States declined to subordinate other economic and political objectives to defending the dollar price of gold, its partners grew less enthusiastic about supporting the greenback. Britain, Switzerland, and the members of the European Economic Community had contributed fully 40 percent of the gold sold on the London market; as America's reluctance to adjust became apparent, they concluded that they would be forced to provide an ever-growing fraction of the total. France, skeptical as always of such arrangements, withdrew from the Gold Pool in June 1967, forcing the United States to increase its contribution. When sterling's devaluation undermined confidence in the dollar, forcing the members of the pool to sell $800 million of gold in a month, the writing was on the wall. The arrangement was terminated the following spring. To prevent the Fed from being drained of gold, its price in private transactions was allowed to rise, although the price at which it was traded in official transactions was kept unchanged. When the price on private markets shot up to more than $40, there was a considerable incentive for other central banks to obtain gold from the Fed for $35 an ounce. The cost of supporting the dollar became clear for other central banks to see. The collapse of the Bretton Woods international monetary system followed as a matter of logic.

That collapse was several years in coming because the United States tightened capital controls. The Interest Equalization Tax of September 1964 had been followed by restraints on banking and corporate transfers of funds abroad, as described above. These were tightened in 1965, coincident with the escalation of U.S. involvement in Vietnam, and again in 1966 and 1968.

[62] In practice, the arrangement operated through foreign central banks and the BIS providing loans of foreign currencies and dollars. The Fed typically borrowed to purchase dollars held abroad instead of selling gold.

[63] When the short-term credits obtained through the operation of the Gold Pool began to mature, the U.S. Treasury attempted to place Roosa bonds (U.S. government bonds that carried a guarantee against capital loss due to dollar devaluation) with foreign central banks, increasing the maturity of the borrowings. This is an example, then, of a situation in which short-term borrowings were not quickly repaid. See Meltzer 1991.

THE BATTLE FOR STERLING

Two manifestations of these pressures were the battles for the British pound and the U.S. dollar. As we saw above, the struggle to make and keep sterling convertible for current-account transactions dated to 1947. The United States saw sterling as the dollar's first line of defense. The pound remained the second most important reserve currency; for members of the British Commonwealth it was the principal form of international reserves. For sterling to be devalued would shake confidence in the entire reserve currency system. Few observers had forgotten 1931, when Britain's abandonment of the gold standard had ignited a flow of funds out of the dollar and forced the Fed to ratchet up interest rates.

British governments, seeking to defend the exchange rate of $2.80, operated under significant handicaps. Output grew slowly by the standards of Western Europe and the United States.[64] The fragmented structure of the British union movement made it difficult to coordinate bargaining, restrain wages, and encourage investment in the manner of the more corporatist European states. External liabilities were extensive, and efforts to preserve sterling's reserve-currency status heightened the country's financial vulnerability. If any country had an argument for floating its currency, it was Britain. The possibility of making sterling convertible and floating it was canvassed in 1952 (as the so-called ROBOT Plan named after its originators *Ro*wan, *Bo*lton, and *Ot*to Clarke) but rejected for fear that a floating pound would be unstable and that sudden depreciation would provoke inflation and labor unrest.[65] Instead, Britain trod the long and rocky road that led to the resumption of convertibility at a fixed rate at the end of 1958.

Figure 4.2 shows an estimate of expected devaluation rates (the implicit probability of devaluation times the expected magnitude of the devaluation in the event that it occurred).[66] The upward march of devaluation expectations in

[64] It grew by 2.7 percent per year in the 1950s, compared to 3.2 percent in the United States, and 4.4 percent in Western Europe as a whole. The comparable figures for the 1960s were 2.8 percent for the United Kingdom, 4.3 percent for the United States, and 4.8 percent for Western Europe. Calculated from van der Wee 1986.

[65] Sterling would have been allowed to fluctuate within a wide band, from $2.40 to $3.20. A floating rate would have violated the Articles of Agreement, however, and precluded access to Fund resources. Admittedly, a couple of countries, most notably Canada, did float their exchange rates in the 1950s, but Canada enjoyed capital inflows throughout the period and never had occasion to contemplate IMF drawings.

[66] This is estimated by the trend-adjustment method—that is, by subtracting the expected rate of depreciation of the exchange rate within the band (calculated by regressing the actual change in the exchange rate on a constant term and the rate's position in the band) from the percentage

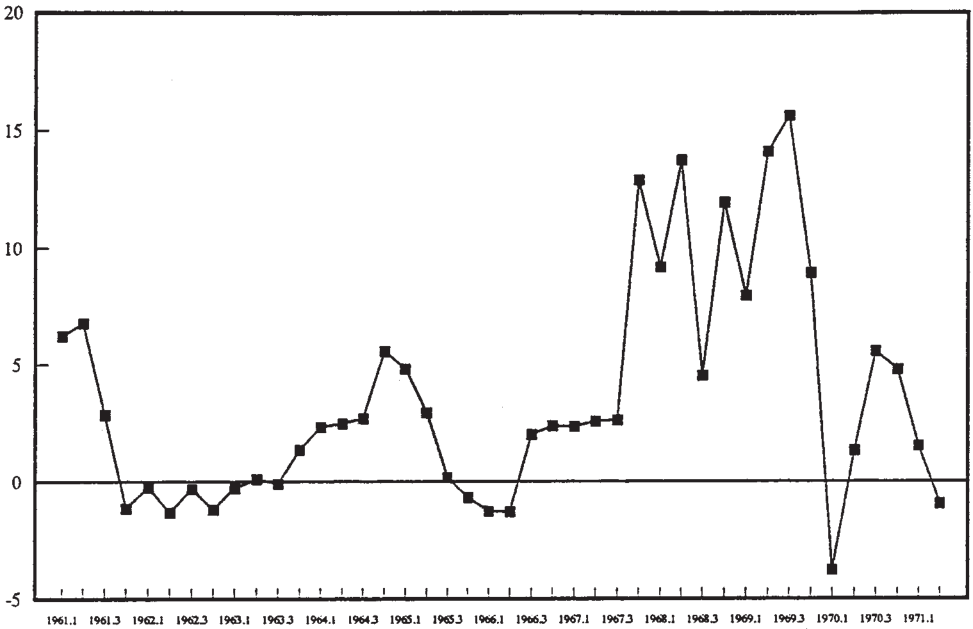

Figure 4.2. Expected Rate of Sterling Devaluation against the Deutsche Mark, 1961–71 (percent per year). *Sources*: Calculations by author. Sterling interest rates from Bank of England, *Quarterly Bulletin*, various issues. Other data from International Monetary Fund, *International Financial Statistics*, various years.

1961 is striking. Growth had accelerated in 1959–60, sucking in imports and transforming a modest current-account surplus into a substantial deficit. Problems of price competitiveness prevented exports from responding. Invisible earnings were stagnant, in a disturbing echo of 1931. The gap was bridged by short-term capital inflows attracted by higher interest rates. Bank rate was raised by a point to 5 percent in January 1961 and by a further two percentage points in June. After being cut back to 5½ and then 5 percent in October and December, it was ratcheted back up to 7 percent the following July. Interest-

forward discount. The figures plotted in Figure 4.2 are derived using a regression, which adds a dummy variable for the period before the third quarter of 1967 as an additional independent variable (although its coefficient turns out to be small and statistically insignificant). Capital controls create complications for this approach, since differences in the domestic-currency-denominated rate of return on sterling and dollars will incorporate not only expected exchange changes but also the costs of evading controls. While using Euro-currency differentials avoids this problem, it introduces another, since for the early part of this period the Euro-markets were relatively thin. Reassuringly, estimates using Euro-market interest differentials in place of the forward discount deliver very similar results.

rate increases were accompanied by fiscal retrenchment. The government's April 1961 budget projected a reduction in the overall deficit. In July the chancellor of the Exchequer announced a 10 percent surcharge on imports, excise duties, and a variety of spending cuts. As Figure 4.2 shows, these measures succeeded in calming the markets.

These were the kind of expenditure-reducing policies that countries typically resisted under Bretton Woods. Britain was no exception; retrenchment in 1961 was not particularly great. In any case, the fiscal measures were described as temporary. Unemployment was only allowed to rise from 1.6 percent in 1961 to 2.1 percent in 1962. Policy was adjusted by just enough to assure the international community of the government's resolve. In March of 1961, European central banks intervened heavily on behalf of sterling. Britain drew $1.5 billion from the IMF, which made an additional $500 million available under a standby arrangement. One can argue that it was the foreign support as much as the domestic measures that reassured the markets.

The following year, 1962, was uneventful, but 1963 was marked by the harshest winter in more than a century (which raised unemployment), de Gaulle's veto of Britain's membership in the European Economic Community, and pre-election uncertainty. January 1964 saw a record deficit in merchandise trade, with the economy again expanding rapidly, and a Conservative government reluctant to take deflationary action just before an election. October saw the election of the first Labour government in thirteen years.

Harold Wilson's newly formed Cabinet rejected devaluation. It feared the inflationary consequences in an economy already approaching full employment and worried that Labour would come to be seen as the party that habitually devalued.[67] The government's only remaining alternative was to impose deflationary fiscal measures, which it hesitated to do. When this reluctance was confirmed in the chancellor's budget speech in November, the crisis escalated. It was surmounted only when the government tightened capital controls and arranged a $1 billion standby credit with the IMF and an additional $3 billion line of credit with eleven foreign countries. The United States urged the British to resist devaluation, fearing that speculative pressures would spill over to the dollar, and took the lead in organizing foreign support.

But in the absence of more fundamental adjustments, foreign support could only delay the inevitable. Figure 4.2 indicates renewed bearishness in

[67] See Cairncross and Eichengreen 1983, p. 164. This motive for resisting devaluation on the part of left-wing governments is a commonplace. See, for comparison, Chapter 5 on France's Socialist government in 1981.

1966 but also that the deterioration in expectations was halted in the first half of 1967 by fiscal retrenchment and an additional $1.3 billion in foreign credits. The closing of the Suez Canal during the Six-Day War in 1967, by auguring a further disruption to trade, did not help, but Wilson hoped that he could ride it out, anticipating that the American economy was soon to boom, 1968 being an election year. However, when Maurice Couve de Murville, the French foreign minister, disappointed by the British government's failure to adopt adequate adjustment measures, voiced doubts about sterling's stability, raising the question of whether further foreign support could be expected, conditions deteriorated markedly.[68]

Against this background, capital took flight. The IMF made the extension of credits conditional on strict deflationary measures, which the British government was reluctant to accept. This left no alternative to devaluation. Sterling's external value was reduced by 17 percent on November 18, 1967. Reflecting the liberalization of capital markets and the speed with which events unfolded, the IMF received only an hour's notice (having received twenty-four hours' notice in 1949).

THE CRISIS OF THE DOLLAR

In October 1960, the price of gold in private markets shot up to $40 an ounce. John F. Kennedy's victory in the presidential election the following month led to capital outflows and further increases in the dollar price of gold. It was as if the markets, echoing their reaction to FDR's election in 1932, were worried that the new president, who pledged to "get America moving again," might find it necessary to devalue.[69]

That the markets reacted this way is indicative of how far things had come since the 1940s, when the $35 gold price seemed etched in stone.[70] The dynamics of the Bretton Woods System, which generated reserves by pyramiding

[68]Readers familiar with subsequent financial history will recognize a parallel with the comments made by Bundesbank president Helmut Schlesinger in 1992. The absence of crisis conditions until the final weeks before devaluation resembled both 1931 and 1992 (as we shall see in the next chapter). Prime Minister Wilson's memoirs confirm the impression conveyed by our estimates of devaluation expectations: that the markets did not attach a significant probability to devaluation until immediately before the crisis. Wilson 1971, p. 460.

[69]In fact, Kennedy was entirely unwilling to do so, regarding the stability of the dollar as a matter of prestige. See Sorensen 1965, pp. 405–10.

[70]The message was reinforced when the Germans and Dutch revalued by 5 percent on March 5, 1961, again suggesting that there might be more attractive currencies in which to invest than the dollar.

more U.S. official foreign liabilities on the country's dwindling gold, placed the currency in a position that increasingly resembled that of the pound sterling in the wake of World War II. The consequences were manageable only if the United States strengthened its current account; as they had in the United Kingdom in the 1940s, observers speculated that a devaluation might be required. The American government, like the British government before it, sought to contain the pressure by placing controls on capital movements and then, as the end drew near, tacking a surcharge on imports.

Before leaving office in January 1961, President Dwight D. Eisenhower issued an executive order prohibiting Americans from holding gold abroad. Kennedy then prohibited U.S. citizens from collecting gold coins. He increased commercial staffs in U.S. embassies in an effort to boost exports. Visa requirements were simplified in an effort to boost tourist receipts, and the export credit insurance facilities of the *Export-Import Bank* were expanded. The Treasury experimented with denominating bonds in foreign currency, and the Federal Reserve, as its agent, intervened on the forward market.[71] In 1962, in order to encourage the maintenance of official foreign dollar balances, Congress suspended the ceilings that had been placed on time deposits held by foreign monetary authorities. The Interest Equalization Tax on American purchases of securities originating in other industrial countries, proposed in July 1963 and implemented in September 1964, reduced the after-tax yield of long-term foreign securities by approximately one percentage point. Voluntary restraints on lending abroad by U.S. commercial banks were introduced in 1965 and extended to insurance companies and pension funds. In January 1968 some of these restrictions on financial intermediaries were made mandatory.

The array of devices to which the Kennedy and Johnson administrations resorted became positively embarrassing. They acknowledged the severity of the dollar problem while displaying a willingness to address only the symptoms, not the causes. Dealing with the causes required reforming the international system in a way that diminished the dollar's reserve-currency role, something the United States was still unwilling to contemplate.

Bolstering this otherwise untenable situation was international cooperation. We have considered one example, the London Gold Pool. In addition, in 1962–63 the Federal Reserve negotiated a series of swap arrangements under which foreign central banks loaned it currencies. The Fed intervened on spot and forward markets to support the dollar, and the German Bundesbank and other European central banks engaged in coordinated intervention on its behalf. Foreign

[71] In 1962 the Federal Reserve resumed foreign-exchange-market intervention on its own account for the first time since World War II.

central banks purchased Roosa bonds (U.S. government bonds that carried a guarantee against capital loss due to dollar devaluation, named after Undersecretary of the Treasury Robert Roosa) despite their limited negotiability.

America's ultimate threat was to play bull in the china shop: to disrupt the trade and monetary systems if foreign central banks failed to support the dollar and foreign governments failed to stimulate merchandise imports from the United States. Foreign governments supported the dollar because it was the linchpin of the Bretton Woods System and because there was no consensus on how that system might be reformed or replaced.

But there were limits to how far foreign governments and central banks would go. No one, in the prevailing climate of uncertainty about reform, welcomed the breakdown of Bretton Woods, but there might come a time where the steps required to support it were unacceptable. The idea that the Bundesbank might engage in large-scale purchases of dollars, for example, fed German fears of inflation. For Germany to support the dollar through foreign-exchange intervention would require German and American prices to rise in tandem over the medium term. Even though U.S. inflation was not yet excessive from the German viewpoint, there was the danger that it might become so, especially if the escalation of the Vietnam War caused the United States to subordinate the pursuit of price and exchange rate stability to other goals. And the more extensive the foreign support, the stronger the temptation for the United States to disregard the consequences of its policies for inflation and the balance of payments, and the less acceptable the consequences for Germany, which was fearful of inflation, and France, which recalled the refusal of other countries to help finance its own military ventures. That cooperation was arranged on an ad hoc basis rather than through the IMF made effective conditionality that much more difficult to arrange. This left foreign governments less confident that they could expect adjustments in U.S. policy.

In fact, the evidence of excessive inflation, money growth, and budget deficits in the United States is far from overwhelming.[72] Between 1959 and 1970, the period of Bretton Woods convertibility, U S. inflation, at an average of 2.6 percent per year, was lower than that in any of the other G-7 countries. The rate of money growth, as measured by M1, was slower in the United States than in the rest of the G-7 in every year between 1959 and 1971.[73] And

[72]This fact is emphasized by Cooper 1993.

[73]Adjusting for the faster rate of growth of output (and money demand) outside the United States modifies the picture only slightly; 1961 was the last year in which the money growth rate minus the output growth rate in the rest of the G-7 fell below that of the United States, and then only marginally. And the behavior of these variables did not augur an acceleration of inflation in

despite widespread complaints about the laxity of American fiscal policy, U.S. budget deficits were not exceptionally large.[74]

How then could inadequate monetary and fiscal discipline in the United States have caused a run on the dollar? The answer is that it did not suffice for the United States simply to match the inflation rates of other countries. Once postwar reconstruction was sorted out, the poorer economies of Europe and Japan could grow faster than the United States simply by virtue of having started out behind the technological leader. And fast-growing countries starting off from low levels of income could afford to run relatively rapid rates of inflation (as captured by economywide measures such as the GNP deflator). As incomes rose, so did the relative price of services, the output of the sector in which the scope for productivity growth is least (a phenomenon known as the *Balassa-Samuelson effect*). Since few products of the service sector are traded internationally, the relatively rapid rise in sectoral prices showed up in the GNP deflator but did not damage competitiveness. Hence, Europe and Japan, which were growing faster than the United States, could run higher inflation rates.[75] Japan, for example, ran inflation rates that were high by international standards throughout the Bretton Woods period (see Figure 4.3).

By absorbing dollars rather than forcing the United States to devalue, foreign central banks allowed their inflation rates to rise still further.[76] But there were limits on the process: Germany, for example, was unwilling to countenance inflation rates much in excess of 3 percent.[77] In the absence of changes in the exchange rate of the dollar, U.S. inflation therefore had to be kept significantly below that level. While Germany revalued modestly in 1961 and 1969, there was a hesitancy, for the reasons detailed above, to alter exchange rates. Adjustment could occur only by depressing the rate of U.S. inflation

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the future. The excess of money growth rates in the rest of the G-7 relative to those of the United States rose in the final years of Bretton Woods.

[74]On monetary policy, inflation, and budget deficits, see Darby, Gandolfi, Lothian, Schwartz, and Stockman 1983 and Bordo 1993.

[75]This same point arises in our discussion of the causes of the crisis in the European Monetary System in 1992. One popular explanation for that crisis focuses on inflation in countries such as Spain and Portugal. But because these were two of the relatively low-income countries of the European Community experiencing the fastest growth, the inflation differential may again overstate the loss of competitiveness due to the Balassa-Samuelson effect.

[76]This is one way to understand how U.S. inflation could be lower than foreign inflation but that the United States could still be the engine of the process.

[77]The average rate of increase of Germany's GDP deflator was 3.2 percent over the period of Bretton Woods convertibility. The mean for the G-7 countries was 3.9 percent. Again, see Bordo 1993.

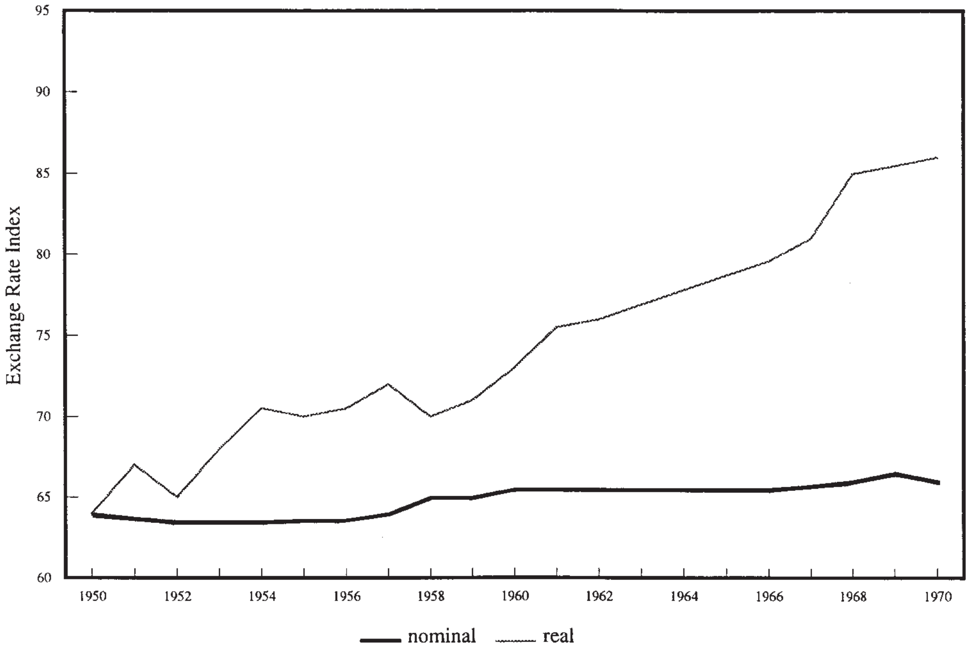

Figure 4.3. Real and Nominal Japanese Yen Exchange Rate, 1950–70. *Source*: Penn World Tables (Mark V), described in Summers and Heston 1991. *Note*: Real exchange rate index is Japan's price level divided by geometric average of dollar price level of eleven OECD countries.

below that of the rest of the G-7.[78] And in a world of liquid markets, even a small divergence from sustainable policies could provoke a crisis.[79]

The spring of 1971 saw massive flows from the dollar to the deutsche mark. Germany, fearing inflation, halted intervention and allowed the mark to float upward. The Netherlands joined it. Other European currencies were re-

[78]The parallels with the 1992 EMS crisis are striking. In 1992 it was again necessary for other countries' price levels to rise less quickly than Germany's, in that instance because of the shift in demand toward the products of German industry associated with German unification. Because the Bundesbank refused to countenance a significant acceleration of inflation and was unwilling to alter intra-EC exchange rates, adjustment could occur only through deflation abroad, which Germany's EMS partners found difficult to effect (as the United States did in the 1960s). In 1991–92, inflation rates in other EMS countries, such as France, actually fell below Germany's, but not by the margin required for balance-of-payments and exchange rate stability. In all these respects, then, the predicament of these countries was similar to that of the United States in the 1960s.

[79]Peter Garber (1993) shows how the cumulation of small policy divergences culminated in a speculative attack on the dollar in 1971.

valued. But flight from the dollar, once started, was not easily contained. In the second week of August, the press reported that France and Britain planned to convert dollars into gold. Over the weekend of August 13, the Nixon administration closed the gold window, suspending the commitment to provide gold to official foreign holders of dollars at $35 an ounce or any other price. It imposed a 10 percent surcharge on merchandise imports to pressure other countries into revaluing, thereby saving it the embarrassment of having to devalue. Rather than consulting with the IMF, it communicated its program to the managing director of the Fund as a fait accompli.

Over the following four months the industrial countries engaged in extended negotiations over reform of the international monetary system, culminating in an agreement at the Smithsonian Conference in Washington. At European insistence, the devaluation of the dollar was limited to a modest 8 percent. The rest of the change in relative prices was effected by revaluing the yen, the Swiss franc, the deutsche mark, and the Benelux currencies. Fluctuation bands were widened from 1 to 2¼ percent. The U.S. import surcharge was abolished. But the United States was not compelled to reopen the gold window; if exchange rate pegs were maintained, this would now occur purely through intervention on the part of the relevant governments and central banks. Adjustment would depend on the effects of the revaluations of European currencies that had occurred in the summer of 1971.

Clearly, nothing fundamental had changed, notwithstanding Nixon's statement, in retrospect tinged with irony, that the Smithsonian Agreement was "the most significant monetary agreement in the history of the world." The Triffin dilemma had not been removed; the dollar value of global gold reserves had been raised only marginally. The revaluation of European currencies improved the competitiveness of U.S. exports, but, absent adjustments in other policies, the effect was only temporary. U.S. policy remained too expansionary to be compatible with pegging the dollar to foreign currencies; the monetary aggregates grew at more than 6 percent per year as the 1972 U.S. elections loomed. The dollar having been devalued once, there was no reason to doubt that it could happen again.

Another attack on sterling, prompted by the inflationary policies of British prime minister Edward Heath, forced Britain to float the currency out of its Smithsonian band in 1972. This set the stage for the final act. Flight from the dollar in early 1973 led Switzerland and others to float their currencies. A second devaluation of the dollar, by 10 percent against the major European currencies and a larger amount against the yen, was negotiated, but without assuring the markets that the underlying imbalance had been removed. Flight from the dollar resumed, and this time Germany and its partners in the EEC jointly floated their currencies upward. The Bretton Woods international monetary system was no more.

THE LESSONS OF BRETTON WOODS

In 1941 John Maynard Keynes, in the statement reproduced at the head of this chapter, dismissed the notion that there existed an automatic balance-of-payments adjustment mechanism as a “doctrinaire delusion.” Not for the first time was he looking forward with remarkable prescience. There is little question that such a mechanism had once existed. When a country experienced an external deficit under the prewar gold standard, the price-specie flow mechanism—that deficits reduced stocks of money and credit, depressing the demand for imports and restoring balance to the external accounts—automatically came into play. The decline in the demand for imports was produced not by large-scale gold outflows, of course, but by higher discount rates and other restrictive policy measures. Keynes was right that this was hardly laissez faire; the mechanism depended on central bank management and rested on political conditions.

By the time current-account convertibility was restored at the end of 1958, the notion that such a mechanism still existed was a delusion indeed. Changed political circumstances made it difficult for central banks and governments to eliminate payments deficits by tightening financial conditions. The substitute developed in the 1950s, adjustments in the speed with which controls were relaxed, had always been regarded as temporary. It was vitiated by the restoration of current-account convertibility and by the development of the Euromarkets and other financial innovations that made capital controls increasingly difficult to enforce.

This left only parity adjustments for eliminating a disequilibrium. And these the Bretton Woods Agreement had sought to deter. Its articles discouraged anticipatory adjustments. They forced governments to deny that parity changes were contemplated and to suffer embarrassment if forced to devalue. As international capital mobility rose over the 1960s, the conflict sharpened. Governments thought to be contemplating devaluation exposed their currencies to attack by speculators. A willingness to devalue once gave rise to expectations that the authorities might devalue again, given their manifest reluctance to pursue deflationary policies. This produced a refusal to devalue at all. The inadequacy of the available adjustment mechanisms and the very great difficulty of operating a system of pegged exchange rates in the presence of highly mobile capital is a first lesson of Bretton Woods.

That this system functioned at all is testimony to the international cooperation that operated in its support. This is a second lesson of Bretton Woods. Unlike the late-nineteenth century, when foreign assistance was limited to instances when the stability of the system was threatened, cooperation among governments and central banks was continuous. It took place in the context of an alliance in which the United States, Western Europe, and Japan were partners in the cold war. Other countries supported the dollar and hence the Bretton Woods System in return for the United States bearing a disproportionate share of the defense burden. A third lesson of Bretton Woods is therefore that cooperation in support of a system of pegged currencies will be most extensive when it is part of an interlocking web of political and economic bargains.

But there were limits to how far Europe and Japan would go. U.S. military expenditures in Southeast Asia were less to their liking than NATO commitments. As supporting the dollar came to jeopardize price stability and other economic objectives at home, Germany and other industrial countries evinced growing reservations. In the nineteenth century, international cooperation was viable—and the need for it was limited—because there was no reason to question governments' overriding commitment to defending their gold parities. Ultimately, governments and central banks were certain to take the measures required for adjustment, which limited the need for foreign support. Under Bretton Woods, in contrast, there were reasons to doubt that adjustment would take place. Cooperation, while extensive, ran up against binding limits. The inevitability of such limits in a politicized environment is a fourth lesson of Bretton Woods.