Volume Title: American Economic Policy in the 1980s

Volume Author/Editor: Martin Feldstein, ed.

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-24093-2

Volume URL: http://www.nber.org/books/feld94-1

Conference Date: October 17-20, 1990

Publication Date: January 1994

Chapter Title: Exchange Rate Policy

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Chapter URL: http://www.nber.org/chapters/c7756

Chapter pages in book: (p. 293 - 366)

5 Exchange Rate Policy

1. *Jeffrey A. Frankel*

The Making of Exchange Rate Policy in the 1980s

Although the 1970s were the decade when foreign exchange rates broke free of the confines of the Bretton Woods system, under which governments since 1944 had been committed to keeping them fixed, the 1980s were the decade when large movements in exchange rates first became a serious issue in the political arena. For the first time, currencies claimed their share of space on the editorial and front pages of American newspapers. For the first time, congressmen expostulated on such arcane issues as the difference between sterilized and unsterilized intervention in the foreign exchange market and proposed bills to take some of the responsibility for exchange rate policy away from the historical Treasury-Fed duopoly.

The history of the dollar during the decade breaks up fairly neatly into three phases: 1981–84, when the currency appreciated sharply against trading partners' currencies; 1985–86, when the dollar peaked and reversed the entire distance of its ascent; and 1987–90, when the exchange rate fluctuated within a range that—compared to the preceding roller coaster—seemed relatively stable (see fig. 5.1). It was of course the unprecedented magnitude of the upswing from 1980 to February 1985, 59 percent in the Fed's trade-weighted index, that made the exchange rate such a potent issue. U.S. exporters lost

The author would like to thank I. M. Destler, C. Randall Henning, Wendy Dobson, Martin Feldstein, Edwin Truman, Paul Volcker, J. David Richardson, Michael Mussa, William Niskanen, C. Fred Bergsten and a few anonymous sources for providing information, comments on earlier drafts, or both. The author would also like to thank Menzie Chinn for efficient research assistance.

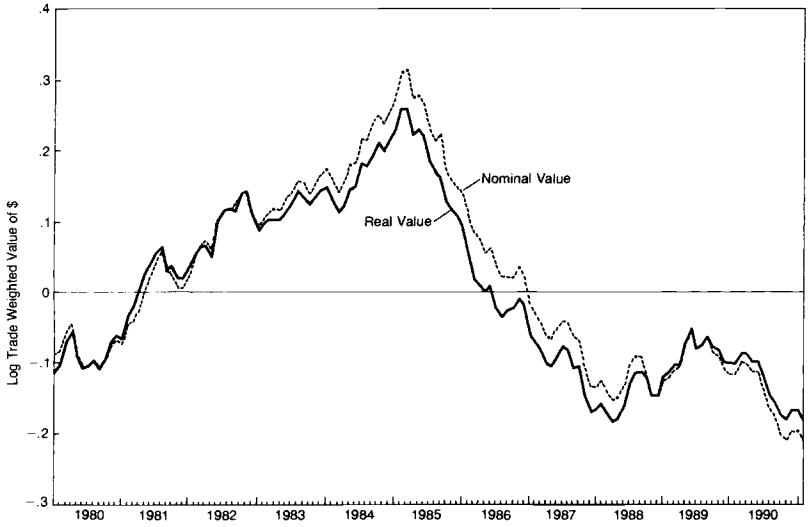

Fig. 5.1 Nominal and real value of the dollar, Morgan Guaranty indices (1980–82 = 0)

price competitiveness on world markets, and other U.S. firms faced intense competition from cheaper imports. Most analysts considered the appreciation of the dollar (allowing for the usual lag of at least two years in trade effects) to be the primary cause of the subsequent deterioration of the U.S. merchandise trade deficit, which rose $123 billion from 1982 to 1987.

This paper begins with a review of the history of exchange rate policy during the 1980s. It then proceeds to discuss the competing philosophical views, proposals, and economic theories and the competing objectives, interest groups, and policymakers that went into the determination of policy. The paper concludes with some thoughts on possible generalizations regarding the political economy of exchange rates.

It must be acknowledged from the outset that the topic of exchange rate policy differs in at least one fundamental respect from such topics as regulatory or trade policy: many economists believe that there is no such thing as exchange rate policy or, to be more precise, that there is no independent scope for the government to affect the exchange rate after taking into account monetary policy (and perhaps fiscal policy or some of the microeconomic policies that are considered by other papers in this volume).

There are, on the other hand, many who believe that such tools as foreign exchange intervention and capital controls *can* have independent effects on the exchange rate. Everyone agrees, furthermore, that an announcement by government officials regarding a desired path for the exchange rate or regarding possible changes in exchange rate *regimes* (e.g., fixed vs. pure floating, vs. man-

aged floating, or vs. target zones) can have important effects via market participants' perceptions of its implications for future monetary policy.

If this were a paper on the economics of exchange rate determination, then it would be central to try to settle the issue of whether the money-supply process and a stable money-demand relationship can together explain the exchange rate. But the assignment here concerns the political process of policy determination rather than the economic process of exchange rate determination. There is no question that the exchange rate is a distinct subject for concern, debate, deliberation, and attempted influence.

In exchange rate policy, as in regulatory policy, "do nothing" is one of the options for the government. Indeed, as we shall see, this was the option officially adopted during the first Reagan administration, 1981–84. Nevertheless, it is by no means a foregone conclusion that this option is the one that is most desirable from an economic standpoint or that it is the one that is likely to prevail for long from a political standpoint.

5.1 The Chronology of U.S. Exchange Rate Policy in the 1980s

5.1.1 The First Phase of Dollar Appreciation, 1980–82

The dollar ended the 1970s in the same fashion that it had started it, by falling in value. The devaluations of 1971 and 1973 had been deliberate attempts to eliminate the accumulating disequilibrium of the Bretton Woods years. The depreciation of 1977–78 also began with a deliberate attempt by Treasury Secretary Michael Blumenthal and others in the Carter administration to "talk down" the dollar. In the absence of a willingness among trading partners to expand at as rapid a rate as the United States, a depreciation of the dollar was at the time viewed as the natural way of staving off the then-record U.S. trade deficits that were beginning to emerge. But the decline soon got out of control. The depreciation of the late 1970s is now usually thought of, in the economic arena, as a symptom of excessive U.S. monetary expansion and, in the political arena, as one of many symbols of the "malaise" that is popularly associated with the Carter administration.

The reversal of this down phase in the dollar began, not with the coming of Ronald Reagan, but rather with the monetary tightening by Federal Reserve Chairman Paul Volcker. In October 1979, the Fed announced a change in its open market procedures, designed to combat inflation and motivated partly by the need to restore the dollar to international respectability. For the subsequent several years, Volcker showed his determination to let interest rates rise however far they had to rise to defeat the inflation of the 1970s. During the period 1981–82, the U.S. long-term government bond rate averaged 13.3 percent, a two-point increase relative to 1980. Interest rates among a weighted average of trading partners rose as well, but not by as much: the U.S. differential averaged 1.9 percent over 1981–82, compared to 0.6 percent in 1979–80. The real

(i.e., inflation-adjusted) interest rate differential rose even more, by between two and three points, depending on the measure of expected inflation used (Frankel 1985). The increase in the relative attractiveness of dollar assets in the eyes of global investors brought about between 1980 and 1982 an appreciation of the U.S. dollar by 29 percent in nominal terms and 28 percent in real terms. Evidence of the textbook-perfect effects of the monetary contraction was seen, not only in the rise of the dollar, but also more broadly in the recessions of 1980 and 1981–82. The traditional channel of monetary transmission to the real economy, the negative effect of an increase in interest rates on the construction industry and other interest rate–sensitive sectors, was subsequently joined by the modern channel of transmission, the negative effect of an increase in the value of the dollar on export industries and other exchange rate–sensitive sectors.

5.1.2 The Second Phase of Dollar Appreciation, 1983–84

The trough of the recession came at the end of 1982; a recovery began in 1983 that was both vigorous and destined to be long lived. The dollar continued on its previous upward path. Between 1982 and 1984, it appreciated another 17 percent in nominal terms and 14 percent in real terms. The textbooks had no trouble explaining why global investors continued to find dollar assets increasingly attractive: the U.S. long-term real interest rate continued to rise until its peak in mid-1984. The differential vis-à-vis trading partners during 1983–84 averaged about 1 percentage point higher than in the previous two years. Nor did the textbooks have much trouble explaining the source of this increase in U.S. real interest rates. As the Reagan administration cut income tax rates, indexed tax brackets for inflation, and began a massive buildup of military spending, the budget deficit rose from 2 percent of GNP in the 1970s to 5 percent of GNP in the mid-1980s. (The sharp increase in the budget deficit in 1982 could be blamed largely on the recession. But, by 1985, the increase was mostly structural.) The increased demand for funds that these deficits represented readily explains the increase in U.S. interest rates, the inflow of capital from abroad, and the associated appreciation of the dollar.

At the same time, the effects of the ever-loftier dollar began to be felt in earnest among those U.S. industries that rely on exports for customers or that compete with imports. The affected sectors on the export side included particularly agriculture, capital goods, and aircraft and other transportation equipment; on the import side they included textiles, steel, motorcycles, and consumer electronics; and on both sides they included semiconductors and automobiles. Overall, the effects on exports and imports added up to a $67 billion trade deficit in 1983, double the record levels of 1977–78. This too was a prediction of the standard textbook model. The fiscal expansion was essentially "crowding out" private spending on American goods, not only in the interest rate–sensitive sectors through the traditional route, but also in the exchange rate–sensitive sectors through the modern route.

5.1.3 The Noninterventionist Policy of the First Reagan Administration

Throughout this period, 1981–84, the Reagan administration had an explicitly laissez-faire (or benign neglect) policy toward the foreign exchange market. The policy was noninterventionist in the general sense that the movement of the dollar was not seen as requiring any sort of government response or, indeed, as a problem. It was also noninterventionist in the narrower sense that the authorities refrained from intervening in the foreign exchange market, that is, from the selling (or buying) of dollars in exchange for marks, yen, or other foreign currencies. The undersecretary for monetary affairs, Beryl Sprinkel, announced in the third month of the administration that its intention was not to undertake such intervention except in the case of "disorderly markets." Lest anyone think that the qualifying phrase was sufficiently elastic to include common fluctuations in the exchange rate, he explained that the sort of example of disorderly markets that the administration had in mind was the occasion of the March 1981 shooting and wounding of the president.[1] The historical data reveal that this date was in fact almost the only occasion between 1981 and 1984 when the U.S. authorities intervened in the market.

I shall discuss in sections 5.2 and 5.3 the various philosophies that gave rise to the laissez-faire stance of the first Reagan administration. For the moment, let us note that the matter is somewhat more complicated than a simple case of government regulation versus the free market.

For Sprinkel, a longtime member of the monetarist "Shadow Open Market Committee" and follower of Milton Friedman, the matter *was* a simple case of the virtues of the free market. Under floating exchange rates, the price of foreign currency is whatever it has to be to equilibrate the demand and supply of foreign currency in the market; it is, virtually by definition, the "correct price." Attempts by the monetary authorities to intervene in the foreign exchange market to keep the value of the currency artificially high or artificially low are unsound gambles with the taxpayers' money, as likely to be counterproductive as attempts by the Department of Agriculture to intervene in the market for grain to keep the price of grain artificially high or artificially low.

But there were other free market conservatives in the starting team at Treasury, the supply-siders, who believed in the need to stabilize the exchange rate just as firmly as the monetarists believed in the desirability of leaving it to be determined by the market. The issue was settled firmly on the side of nonintervention by the secretary, Donald Regan. He had neither a monetarist nor a supply-sider philosophy (nor, indeed, much of an economic or philosophic framework of any sort). Regan, rather, saw the issue more in terms of politics and personalities. In the absence of any guidance from the White House (and, on exchange rate policy even more than on other areas of policy, there was in

1. The source here, as for many other points in this paper, is the authoritative study by Destler and Henning (1989, 20).

fact no guidance forthcoming from the White House [see Regan 1988]), Regan saw his role as defending himself and the president from any suggestions that the status quo with respect to the dollar was a bad thing or that it required a response. He subscribed to the "safe-haven" view that the pattern of capital inflow, dollar appreciation, and trade deficit was the result of the favorable investment climate created by the Reagan tax cuts and regulatory changes, in opposition to the textbook view that it was the result of a fiscal expansion and an increase in real interest rates.

When the heads of state of the G-7 countries met at Williamsburg, Virginia, 28–30 May 1983, the Europeans complained to Reagan about America's budget deficit and its effects such as high interest rates. But Reagan and Regan responded that the strong dollar and U.S. trade deficits were not problems and, in any case, were not due to high interest rates and fiscal expansion (Putnam and Bayne 1987, 179).

Within the first Reagan administration, the view that the strong dollar was the result of the differential in real interest rates was put forward early and often by Martin Feldstein, the chairman of the Council of Economic Advisers from 1982 to 1984.[2] His view was that the source of the increase in real interest rates was the increase in the federal structural budget deficit and the consequent shortfall of national saving. This explanation was increasingly accepted as the correct one for the appreciating dollar and widening trade deficit by other members of the president's cabinet. Representatives of trading partners' governments also tended to share this view. But it was rejected by the Treasury and some White House aides, principally on the grounds that the emphasis on the "twin deficits" amounted to "selling short" America and the president's policies. Regan and Feldstein were frequently described in the press as embattled over the issue.

In February 1984, the annual *Economic Report of the President,* the main text of which is in fact always the report of the Council of Economic Advisers, was submitted to the Congress. It contained an estimate that the market considered the dollar to be "overvalued" by more than 30 percent and a forecast that, as a consequence, the trade deficit would almost double to approximately $110 billion in 1984 and that the borrowing to finance these deficits would in 1985 convert the United States from a net creditor to a net debtor in the international accounts. In Senate testimony, when asked to reconcile this pessimistic outlook with his own, more rosy, forecasts, Regan was quoted as saying that, as far as he was concerned, the senators could throw the report of the Council of Economic Advisers into the waste basket.[3]

2. After the Williamsburg Summit, Feldstein told the press that he hoped that the meeting had increased awareness of the dangers of the dollar appreciation (Putnam and Bayne 1987, 179).

3. As part of the interagency review process in January, Don Regan had (unsuccessfully) threatened Feldstein that he would tell the president not to sign the *Report* if it did not adopt a more upbeat tone than the existing draft, abandoning its emphasis on the bad outlook for the trade deficit and its analysis of the dollar as the major cause of the problem. The text was not altered in substance. Needless to say, the deficit predictions subsequently came true.

5.1.4 The Yen/Dollar Agreement of 1984

Complaints about the strong dollar and the effect it was having on trade were heard increasingly, however, and administration policymakers became increasingly aware of two (related) risks: that trade would be a potent weapon that the Democrats would use in the November 1984 presidential election and that such complaints would result in protectionist legislation on Capitol Hill. In October 1983, therefore, Regan launched the yen/dollar campaign, an attempt to respond to the political issue of the appreciating dollar and widening trade deficit, without abandoning the administration's free market orientation. (As was also true later, the Treasury continued to resist the characterization that the dollar was "too high" and preferred to say that *other* currencies—in this case the yen—were "too low.") In subcabinet and cabinet meetings, Regan succeeded in setting the request for liberalization as a top U.S. priority in President Reagan's visit to Japan and his meeting with Prime Minister Nakasone in November 1983. As a result, a working group of Treasury and Ministry of Finance representatives was formed, and its work culminated in the Yen/Dollar Agreement of May 1984.

I described in my 1984 study how the impetus behind the U.S. campaign for Japanese liberalization was rooted in what I considered questionable economic logic on the part of Treasury Secretary Don Regan.[4] This was the notion that Japanese financial liberalization would help promote capital flow from the United States to Japan, rather than the reverse, and would help reduce the corresponding U.S. trade deficit, through an appreciation of the yen against the dollar. Regan acquired this theory from an American businessman, Caterpillar Tractor Chairman Lee Morgan, in late September 1983.[5] It was not a theory that had previously had many adherents in the U.S. government.[6]

The questionable component of the argument adopted by Regan was the proposition that the Japanese authorities at the time were using capital controls or administrative guidance to discourage the flow of capital into Japan and to depress the value of the yen. Prohibitions against foreign acquisition of most Japanese assets did in fact exist in the 1970s, but they were formally eliminated in the Foreign Exchange Law of December 1980. The de facto liberalization dated from April 1979. It is evident from a comparison of the Euroyen and

4. My study was published four months after I left the staff of the Council of Economic Advisers.

5. Morgan based his analysis and recommendations on Murchison and Solomon (1983). It is quite clear that their goal was promoting the flow of capital from the United States to Japan, rather than the reverse; their list of suggested measures for Reagan to urge on Nakasone included, e.g., "an increase in the Government of Japan's overseas borrowing with the proceeds converted immediately into yen to assist Japan in financing its substantial budget deficits" (pp. 25–27).

6. Undersecretary Sprinkel had testified as recently as the preceding April that there was no merit to the theory that the Ministry of Finance was using capital controls to keep the yen undervalued. A study by the General Accounting Office released the same month found the same thing. On the other hand, Secretary of State George Shultz did in private propose something very much like the yen/dollar campaign in the summer of 1983. But he recognized that the State Department was obliged to leave exchange rate matters to the Treasury.

Tokyo short-term interest rates that arbitrage was able to eliminate the onshore-offshore differential that existed prior to that date. In the early 1980s, the objective of the Japanese authorities was, if anything, to *dampen* the depreciation of the yen, not to promote it.[7] Thus, it could have been predicted—and was predicted (Bergsten 1984; CEA 1984; and Frankel 1984)—that, if the Ministry of Finance were to agree to U.S. demands to avoid any remaining interference with international financial flows, the impact would be an acceleration of capital outflow attracted by higher interest rates in the United States, rather than the reverse.

To be sure, other motives for the liberalization campaign were very relevant as well. From the beginning, the appeal of the idea to Don Regan and others in the administration lay in the political need to be seen beginning to respond to public and congressional concerns over the rising U.S. trade deficit (particularly in a presidential election year) and the desire to do so in a way consistent with free market ideology. As the first instance of the Treasury attempting to respond to the trade deficit issue via exchange rate policy, in order to fend off protectionist pressures, the yen/dollar campaign anticipated the Plaza Accord by almost two years. To this extent, the plan made perfect sense politically.[8]

Two varieties of the free market argument are potentially quite sensible. One is that the point of the exercise was to promote the internal efficiency of the Japanese economy. This is apparently one of the things that U.S. officials had in mind later when they spoke of the Yen/Dollar Agreement as having been a success and cited it as a model for the 1990 Structural Impediments Initiative with Japan or won/dollar talks with Korea. The typical reaction of an outsider, however, is that the Japanese would not appear to need any advice from the United States on how to run their economy, while the typical reaction of an American would be that the goal of U.S. policy should be to promote the competitiveness of the American economy relative to Japan, rather than the reverse.

The remaining argument is that the point of the campaign was to promote better treatment in Japan of U.S. banks, securities companies, and other providers of financial services. Several measures of this sort indeed appeared on the list that Regan discussed with Finance Minister Noboru Takeshita on 10 November 1983, on the occasion of President Reagan's visit to Japan, and in the May 1984 agreement. This component of the campaign is perfectly analogous to Reagan administration pressure on Japan at that time to allow, for example, the free import of beef and citrus products. There is no question that the initiation of the yen/dollar campaign in October 1983 gained political momentum when New York financial institutions responded to a Treasury invitation to

7. For evidence that the Japanese government in the early 1980s sought to resist the depreciation of the yen against the dollar, not to exacerbate it, see CEA (1984), Frankel (1984, 16–25), Funabashi (1988, 89–92), GAO (1984), and Haynes, Hutchison, and Mikesell (1986).

8. I describe below the switch in Treasury emphasis toward bringing down the dollar after James Baker succeeded Don Regan as secretary in January 1985 (see also Funabashi 1988, 75ff.).

contribute a wish list of proposed measures. There is also little question that the measures that were adopted worked on U.S. service exports in the desired direction.[9] But my claim is that the objective of helping U.S. providers of financial services was secondary to the objective of affecting capital flows and the exchange rate.

5.1.5 The "Bubble," June 1984–February 1985

From mid-1984 to February 1985, the dollar appreciated another 20 percent. This final phase of the currency's ascent differed from the earlier phases, not only in that the appreciation was at an accelerated rate, but also in that it could not readily be explained on the basis of economic fundamentals, whether by means of the textbook theories or otherwise. The interest rate differential peaked in June and thereafter moved in the wrong direction to explain the remainder of the upswing. Two influential studies were written, to the effect that the foreign exchange market had been carried away by an irrational "speculative bubble" (Krugman 1985; Marris 1985; Cooper 1985).[10] The trade deficit reached $112 billion in 1984 and continued to widen. Many who had hitherto supported freely floating exchange rates began to change their minds.

Attitudes in the administration began to shift subtly in one respect. Treasury officials (both in public and in private) had previously denied that the large federal budget deficit and the trade deficit were problems or that the United States was becoming dependent on the foreign capital inflow to make up the shortfall in national saving.[11] But, toward the end of the first Reagan administration, these officials began (explicitly) to admit that the budget deficit *was* a problem and (implicitly) to admit that the country did indeed need to borrow

9. Several qualifications can be noted. First, measures to help U.S. financial institutions were not in the interest of U.S. manufacturing (and, for this reason, did not appear in the original Murchison-Solomon [1983] report). Second, in contrast to recent U.S. efforts to include services in the Uruguay Round of GATT negotiations, these measures may not have been in the interest of promoting the existing liberal international trade regime, as they were negotiated bilaterally and the benefits (such as the decision by the Tokyo Stock Exchange to make seats available) often accrued more to U.S. financial institutions than those of third countries. Third, one variety of the "Yanks hoodwinked again" school argues that the wily Japanese somehow used liberalization to attain more benefits for *their* banks in the United States and Europe than they granted to U.S. banks operating in Japan. Of course, standard theories of the "gains from trade" say that both countries can benefit simultaneously from liberalization.

10. Contemporaneous statements by economists that the dollar was greatly overvalued included presentations by Krugman, Bergsten, and Richard Cooper to a prominent Federal Reserve System conference in Jackson Hole, Wyoming, just one month before the Plaza meeting. Another reference on "the dollar as an irrational speculative bubble" that dates from this year is Frankel and Froot (1990).

11. Some, particularly Destler and Henning (1989, 29), attribute the May Yen/Dollar Agreement to a desire on the part of Treasury officials to make it easier for Americans to borrow from Japan. But this argument dates the borrowing motivation too early and attributes too much consistency to Treasury behavior. As of the spring of 1984, these officials were still claiming that the United States did not need to borrow from abroad to finance a shortfall of saving. The motivation in the Yen/Dollar Agreement was, rather, the one noted above: to try to decrease the yen/dollar exchange rate and reduce the U.S. trade deficit, which is diametrically opposed to the motivation of increasing the net flow of capital from Japan to the United States.

from abroad to finance the deficits, and they took steps to facilitate such borrowing. In July 1984, Assistant Secretary David Mulford moved to make it easier for U.S. corporations to borrow from abroad, by eliminating the withholding tax on payment of interest to foreign residents, and allowed bearer bonds to be issued in the Euromarket. In September 1984, the Treasury created a new kind of bond that was specially targeted so as to appeal to foreign investors and sent Undersecretary Sprinkel to Tokyo and various European capitals to help drum up customers for these bonds. But these measures did not constitute a decision that the strong dollar and trade deficit presented a problem. When it was no longer possible to postpone the choice between allowing the saving shortfall to keep interest rates high (thereby crowding out the interest-sensitive components of U.S. demand, so as to protect the exchange rate–sensitive components) and allowing it to keep the dollar high (thereby crowding out net exports, so as to protect the interest-sensitive sectors), in late 1984 the Regan-Sprinkel team finally opted for the latter alternative de facto. Indeed, the increase in attractiveness of U.S. assets that was brought about by the July policy changes by Treasury furnishes virtually the only change in economic fundamentals that could conceivably help explain the appreciation of the dollar over this period when interest rates were falling.

5.1.6 The Plaza Sea Change, 1985

The pivotal event in the making of exchange rate policy in the 1980s was the shift from a relatively doctrinaire laissez-faire policy during the first Reagan administration to a more flexible policy of activism during the second administration. In later sections, I will consider the extent to which economics, politics, and personalities combined to produce this shift and the extent to which the shift in policy was in turn responsible for the reversal of the dollar's appreciation.

An obvious point from which to date the switch is 22 September 1985, when finance ministers and central bank governors from the G-5 countries met at the Plaza Hotel in New York and agreed to try to bring the dollar down.[12] The Plaza Accord was certainly the embodiment of the new regime. But I would prefer to date the start of the new era from the beginning of that year. With the inauguration of the second Reagan administration, Don Regan and Beryl Sprinkel left the Treasury (for the White House and the Council of Economic Advisers, respectively). James Baker became secretary of the Treasury, and his aide Richard Darman became deputy secretary.[13] Both men had already

12. The story of the Plaza is described in detail in Funabashi (1988, 9–41).

13. The deputy secretary job that Darman took had previously been occupied by Tim McNamar. (McNamar did not quite have either Sprinkel's zeal for free market ideology or Regan's zeal for the exercising of power and in any case did not play a central role in exchange rate policy.) The position of undersecretary for monetary affairs was not filled after Sprinkel's departure. Thus, Darman de facto succeeded Sprinkel in the area of exchange rate policy. David Mulford continued in the next-lower rank as assistant secretary for international affairs throughout the remainder of the second Reagan administration and was eventually promoted to a new position of undersecretary for international affairs in the Bush administration.

developed at the White House a reputation for greater pragmatism than other, more ideological members of the administration. In January confirmation hearings, Baker explicitly showed signs of the departure with respect to exchange rate policy, stating at one point that the Treasury's previous stance against intervention was "obviously something that should be looked at" (Destler and Henning 1989, 41–42).

Another reason to date the change from early in the year is that the dollar peaked in February and had already depreciated by 13 percent by the time of the Plaza meeting. Some, such as Feldstein (1986), would argue that the gap in timing shows that exchange rate "policy" had in fact little connection with the actual decline of the dollar, which was instead determined in the private marketplace regardless of what efforts governments made to influence it. But, notwithstanding that official policy did not change until September,[14] there are two respects in which the bursting of the bubble at the end of February may have been in part caused by policy change.

First, it was widely anticipated that Baker and Darman would probably be more receptive to the idea of trying to bring down the dollar than their predecessors had been. If market participants have reason to believe that policy changes to reduce the value of the dollar will be made in the future, they will move to sell dollars today in order to protect themselves against future losses, which will have the effect of causing the dollar to depreciate today.

Second, some intervention was agreed on at a G-5 meeting attended by Baker and Darman on 17 January and did take place subsequently (see Funabashi 1988, 10).[15] The U.S. intervention was small in magnitude.[16] But the German monetary authorities, in particular, intervened heavily to sell dollars in foreign exchange markets in February and March.[17] The February intervention was reported in the newspapers and, by virtue of timing, appears a likely candidate for the instrument that pricked the bubble. It is in turn likely that the accession of Baker to the Treasury in January and the G-5 meeting were the developments that encouraged the Germans to renew their intervention efforts at that time.

The German authorities could claim credit for the reversal of policy. (So, for that matter, could the French, who had long and consistently been arguing in favor of foreign exchange intervention.) Looking back, Baker instead got the

14. A June 1985 meeting of G-10 deputies in Tokyo, e.g., concluded that there was no need for international monetary reform and also endorsed the 1983 finding of the Jurgensen Report (*Report of the Working Group* 1983) that intervention did not offer a very useful tool to affect exchange rates (Obstfeld 1990; and Dobson 1991).

15. Surprisingly, the G-5 public announcement on 17 January used language that, on the surface at least, sounds more prointervention than was used later in the Plaza announcement: "in light of recent developments in foreign exchange markets," the G-5 "reaffirmed their commitment made at the Williamsburg Summit to undertake coordinated intervention in the markets as necessary."

16. A total of $659 million in foreign exchange purchases from 21 January to 1 March, as compared to $10 billion by the major central banks in total (*Federal Reserve Bank of New York Quarterly Review* 10 [Spring 1985]: 60; and 10 [Autumn 1985]: 52).

17. Intervention was particularly strong on 27 February and appeared to have an impact on the market (e.g., *Wall Street Journal*, 23 September 1985, 26).

credit in public, perhaps because of his skill at receiving favorable coverage from the U.S. media and the extent to which political perceptions in the 1980s asymmetrically tended to radiate from Washington, D.C., out to the rest of the world, rather than vice versa.

In April, at an Organization of Economic Cooperation and Development (OECD) meeting, Baker said, "The US is prepared to consider the possible value of hosting a high-level meeting of the major industrial countries" on the subject of international monetary reform. This trial balloon never went much further, despite similar proposals in the Congress (Putnam and Bayne 1987, 199). Monetary issues were not extensively discussed at the Bonn Summit of G-7 leaders in May.[18]

On 22 September, however, the G-5 ministers, meeting at the Plaza, agreed on an announcement that "some further orderly appreciation of the non-dollar currencies is desirable" and that they "stand ready to cooperate more closely to encourage this when to do so would be helpful," language that by the standards of such communiqués is considered (at least in retrospect) to have constituted strong support for concerted intervention, even though the word *intervention* did not appear. A figure of 10–12 percent depreciation of the dollar over the near term had been specified as the aim in a never-released "nonpaper" drafted by Mulford for a secret preparatory meeting of G-5 deputies in London on 15 September and (according to American government sources) was accepted as the aim by the G-5 ministers at the Plaza.[19] There was, apparently, little discussion among the participants as to whether changes in monetary policy would be required to achieve the aim of depreciating the dollar.

On the Monday that the Plaza announcement was made public, the dollar fell a sudden 4 percent against a weighted average of other currencies (slightly more against the mark and the yen). Subsequently, it resumed a gradual depreciation at a rate similar to that of the preceding seven months.[20] Interest rates continued to decline gradually, despite fears of Volcker and many others that a

18. History records that the G-7 summit of May 1985 was overshadowed by the public relations disaster of Bitburg, which arose when President Reagan embarrassingly found himself committed to visiting a German cemetery that contained graves of Nazi SS soldiers (Putnam and Bayne 1987, 200–201). History will neither confirm nor deny the report that this mistake on the part of the White House advance team was an indirect consequence of the strong dollar. On the afternoon when aide Michael Deaver should have been inspecting the Bitburg cemetery, he and other White House aides reportedly were instead out buying BMWs (Bovard 1991, 316), which at the time could be had in Germany for half the U.S. price as the result of the appreciation of the dollar against the mark.

19. The "nonpaper" also specified the total scale of intervention to be undertaken over the subsequent six weeks (up to $18 billion) and the allocation among the five countries (Funabashi 1988, 16–21). Intervention actually undertaken by the end of October turned out to be $3.2 billion on the part of the United States and $5 billion on the part of the other four countries, plus over $2 billion on the part of G-10 countries that were not represented at the Plaza, particularly Italy (*Federal Reserve Bank of New York Quarterly Review* 10 [Winter 1985–86]: 47).

20. Because the rate of depreciation in the six months after the Plaza was no greater than in the six months before the Plaza, Feldstein (1986) argued that the change in policy had no effect. This logic is far from conclusive, however.

depreciation might discourage international investors from holding dollars and thereby force interest rates up.[21] Before long, the Plaza had widely become considered a great public success.

5.1.7 The Apotheosis of International Coordination, 1986

Baker's ambitions for joint international policy-making concerned more than just exchange rates. His efforts to get Japan, Germany, and other trading partners to agree to expand their economies go back to negotiations leading up to the Plaza (Funabashi 1988, 11–12, 36–38; Putnam and Bayne 1987, 205; *Wall Street Journal,* 23 September 1985, 1, 25). At the next summit of G-7 heads of state, held in Tokyo in May 1986, the United States persuaded the others to adopt a system of so-called objective indicators. The list of indicators included the growth rate of GNP, the interest rate, the inflation rate, the unemployment rate, the ratio of the fiscal deficit to GNP, the current account and trade balances, the money growth rate, and international reserve holdings, in addition to the exchange rate. The plan was to expand the existing G-5 finance ministers' meetings to include Italy and Canada and to agree in each meeting on a set of quantitative predictions/goals for each of the indicator variables. At subsequent meetings, each of the seven economies' performances would be judged against those goals. In the words of the Tokyo Economic Declaration, the finance ministers and central bankers would "make their best efforts to reach an understanding on appropriate remedial measures whenever there are significant deviations from an intended course."

Mulford, as an unnamed Treasury source, indicated to the press that G-7 members were supposed to feel substantive "peer pressure" to modify their policies so as to meet the agreed-on goals. The other countries suspected that the U.S. Treasury's aim in setting up this system was to pressure them into greater economic expansion, as a way for the United States to reduce its trade deficit without itself having to undertake unpleasant fiscal retrenchment. The Germans spoke out against the "robotization" of international policy-making.

The maneuvering that went on outside G-7 meetings in 1986 was more substantive than the maneuvering that went on inside. Baker was repeatedly quoted in the press as "talking the dollar down," in large part as a weapon to induce the trading partners to cut interest rates. This was a tack very much reminiscent of an earlier Treasury secretary, Blumenthal. The pitch went something like this: "We would prefer that you expand your economies and thereby import more from us so that reduction of the U.S. deficit can be achieved in a way consistent with growth for all parties. But, if you are not willing to go along, then I am afraid we are just going to have to let the dollar depreciate more, in which case your exports to us will fall."

The Germans and Japanese intervened in the foreign exchange market to try to support the dollar but complained that "these efforts were in vain, not least

21. The role of Volcker and monetary policy during this period is discussed in sec. 5.6 below.

because statements by U.S. officials repeatedly aroused the impression on the markets that the U.S. authorities wanted the dollar to depreciate further. Moreover, until then [the Louvre Accord in late January 1987] the Americans hardly participated in the operations to support their currency" (*Report of the Deutsche Bundesbank for the Year 1984,* quoted in Obstfeld 1990, 227). Meanwhile, Fed Chairman Volcker was also being quoted as favoring the current level for the exchange rate, in apparent opposition to Baker.

By September 1986, the yen/dollar rate had declined from its peak of 260 to about 154. Japanese exporters were feeling heavily squeezed. At an unannounced rendezvous in San Francisco, Japanese Finance Minister Kiichi Miyazawa met with Baker. They made a deal under which the exchange rate would be stabilized in its current range, and in return the Japanese would undertake greater fiscal expansion. The agreement was not announced until October. In the interim, the yen had depreciated back to about 162 yen/dollar. The Americans suspected the Japanese of deliberate manipulation so as to lock in a more favorable rate and returned to talking down the dollar. This episode is an example of the difficulty of enforcing an international cooperative agreement if its terms are not made explicit and public from the beginning to allow participants and outside observers to judge compliance.

5.1.8 The Louvre Accord and the Return of Dollar Stability

The next meeting of G-7 finance ministers was held at the Louvre in Paris on 21–22 February 1987. The Baker-Miyazawa agreement proved to be something of a dry run for the Louvre Agreement. The ensuing communiqué showed that the United States had agreed that the dollar should be stabilized "around current levels," and in return Japan had agreed to expand domestic demand in general, and Germany and some of the others had agreed more narrowly to cut taxes. One interpretation as to why Germany and the others were willing to participate at the Louvre when they had not been earlier is that the Baker-Miyazawa agreement demonstrated the readiness of the United States and Japan to proceed with a "G-2," and the Germans and the others did not want to be left out.[22]

Two questions of importance for evaluating the Louvre Agreement concern quantitative bands and intervention. The communiqué that was released after the meeting, as with all G-7 meetings, contained little hard information and conveyed the major policy change with a few understated words: "The Ministers and Governors agreed that the substantial exchange rate changes since the

22. Standard economic theories of the gains from coordination do not explain why a country should necessarily mind if other countries enter into an agreement without it. (Indeed, in many cases, the excluded countries should in theory be able to reap the benefits from worldwide economic expansion, enhanced monetary stability, or some other "public good," without having to bear any of the burden.) But there must be some loss of power or prestige from being left out, because it is a commonly expressed subject of concern. Italy, which at the Tokyo Summit of May 1986 had won an expansion of the G-5 ministers group to the G-7 (Putnam and Bayne 1987, 208–9), refused to join in the Louvre communiqué, in protest against its exclusion from an informal G-5 meeting that had already worked out the Louvre Accord.

Plaza Agreement will increasingly contribute to reducing external imbalances and have now brought their currencies within ranges broadly consistent with underlying economic fundamentals. . . . Further substantial exchange rate shifts among their currencies could damage growth and adjustment prospects in their countries." As with the Plaza Accord, participants denied to the press that any specific quantitative target range had been set (*Wall Street Journal,* 23 February 1987, 3). Subsequent newspaper reports spoke of the range or target zone that had been set at the Louvre and made guesses as to what it might be. Most knowledgeable observers surmised that probably no explicit quantitative range had in fact been agreed on. This view was overturned, however, when Funabashi (1988, 183–87) reported that the Louvre participants had after all set a "reference range" of 5 percent around the current level.[23]

The advantage of having kept the target range secret was borne out when the dollar broke out of the lower end of the range. By April 1987, the scheduled time of a G-7 meeting, the yen-dollar rate had fallen 7 percent from the Louvre baseline. The Japanese finance minister, Miyazawa, was forced to accept Baker's proposal to "rebase" at the current level of 146 yen/dollar, with the same width of the reference range bands as before.

The U.S. commitment at the Louvre to oppose further depreciation of the dollar might be supposed to show up in three ways, besides the announcement of the agreement itself: an absence of statements by the secretary of the Treasury "talking down the dollar," purchases of dollars in foreign exchange intervention operations, and a tighter monetary policy. From then on, Baker did indeed refrain, for the most part, from talking down the dollar. For the first time since the heavy dollar sales of 1985, the United States also did indeed intervene substantially in the foreign exchange market in the aftermath of the Louvre, buying dollars to discourage further depreciation. Finally, U.S. interest rates did indeed begin a gradual rise in February (reversing a three-year downward trend), although the Federal Reserve was motivated more by a desire to choke off inflation, which was beginning to edge up slightly again, than by a feeling of commitment to support the value of the dollar. Perhaps as a result of these three steps, the dollar appreciated, particularly against the mark, from the date of the Louvre until mid-March (at one point inducing a small amount of Fed intervention in March to dampen the appreciation).

5.1.9 The Financial Markets Fear a Dollar Plunge, 1987

Many analysts had been warning for some time of the possibility of a "hard landing," which could be defined as a fall in the dollar that, because it is caused by a sudden portfolio shift out of dollar assets, is accompanied by a sharp

23. More precisely, a narrower margin of ± 2.5 percent, after which point intervention would be called for on a voluntary basis, and a wider margin of ± 5 percent, at which point a collaborative policy response would be obligatory. Such meetings are notorious for each country emerging with its own view as to what was agreed on, and there is always the possibility that the 5 percent target range was a U.S. proposal about which some countries, such as Germany, were unenthusiastic. No legal or quasi-legal documents are signed at such meetings.

increase in interest rates that have a contractionary effect on economic activity (e.g., Marris 1985).[24] Two events shook financial markets in 1987; each of them began with markings of such a portfolio shift. First, in the spring, a fall in demand for U.S. bonds, perhaps led by nervous foreign investors, led to a depreciation of the dollar (despite concerted intervention in support of the dollar) and an abrupt decline in bond prices and increase in interest rates.

Second, world stock markets crashed on 19 October 1987. Of the various possible causes that have been proposed for the bursting of the apparent bubble, several are international in nature. By the fall of 1987, the U.S. trade deficit still had not improved,[25] and Jim Baker was again hoping to convince the largest trading partners to expand their economies. On 15 October, the Commerce Department reported an unexpectedly large August trade deficit, and the New York stock market reacted with a then-record ninety-five-point fall.[26] On 18 October, Baker again called on the German minister, Stoltenberg, to undertake expansion, with renewed dollar depreciation as the threatened alternative. When the U.S. and other stock markets crashed on the next day (508 points in the case of New York), two possible causes that were identified were the 14 October trade deficit announcement and Baker's threat to the Germans to let the dollar fall. A third hypothesis is that the markets feared that the Fed would deliberately raise interest rates to try to keep the dollar from falling through a floor set at the Louvre (Feldstein 1988a; Obstfeld 1990).[27]

On 19 October, many observers at first feared that the hard landing was at hand. But, in large part owing to the rapid reaction of the Federal Reserve, interest rates fell rather than rose, and there was no subsequent slowdown in economic activity. The Fed was prepared to allow a sharp decline in the dollar if the alternative were insufficient liquidity to avert a financial crisis; although the dollar, surprisingly, did not depreciate on 19 October.

Consultations among the various governments began immediately, but, in the absence of a clear idea as to what macroeconomic policy commitments could be made, with respect to U.S. fiscal policy in particular, no G-7 meeting was scheduled. Dollar depreciation was again a concern, with frequent intervention in support of the dollar having little apparent effect. Two months after the stock market crash, G-7 representatives decided in a "Telephone Accord" to try to breathe new life into the Louvre Agreement. Paragraph 8 of their 22

24. This was also a major concern of Paul Volcker's.

25. In retrospect, the trough in the dollar trade deficit occurred in the third quarter of 1987 (and the trough in the "real trade deficit," i.e., the quantity of exports minus the quantity of imports, in the third quarter of 1986).

26. Other immediate market reactions that day included a decline in the dollar and an increase in short-term interest rates, precisely as in the portfolio-shift/hard-landing scenario (*Wall Street Journal,* 5 November 1987, 22).

27. This explanation was partly inspired by Chairman Greenspan's move to raise interest rates earlier in the year. But Greenspan's motivation was probably to respond to incipient signs of re-emerging inflation, particularly to demonstrate his independence from the administration and to earn his tough-guy credentials in the eyes of the market soon after his appointment to replace Paul Volcker, more than to meet any exchange rate commitment made by Baker at the Louvre.

December 1987 communiqué (which the G-7 leaders were later to repeat word for word in the communiqué of the Toronto Summit in June 1988) modified slightly earlier statements in favor of exchange rate stability. It included new wording: "Either excessive fluctuation of exchange rates, a further decline of the dollar or a rise in the dollar to an extent that becomes destabilizing to the adjustment process, could be counterproductive (Dobson 1991, table 4.8, p. 65; *New York Times,* 8 January 1988, 26). The asymmetry of the language, describing the undesirability of a rise in a more qualified way than the undesirability of a fall, was a deliberate signal that the group wanted to put a floor under the dollar at its current level. The markets were initially unimpressed, but heavy around-the-clock intervention in support of the dollar[28] in January 1988 was apparently quite effective at combating dollar weakness.

Periodically in 1987 and 1988, Japan's Ministry of Finance used administrative guidance to encourage Japanese institutional investors to hold more U.S. assets than they might choose on profit-maximizing grounds, in order to keep the dollar from depreciating further than it already had by then. This happened, in particular, in response to the U.S. bond market fall in the spring of 1987. Koo (1988, 8) tells us, "Even though the imposition of such quasi-capital controls [reporting requirements for Japanese banks handling foreign exchange—and an implicit threat behind them—imposed in May 1987 to head off a dollar collapse] was against the spirit of the Yen/Dollar Committee sponsored jointly by the Japanese Ministry of Finance and the US Treasury to deregulate Japanese financial markets, no complaints were heard from the US" (see also Hale 1989, 2–4).

5.1.10 Dollar Rallies, 1988 and 1989

The dollar began to appreciate after the intervention of January 1988. Its strength in mid-1988, leading up to the November presidential election, led some observers to suggest that the authorities in Japan and Germany were supporting the U.S. currency in order to help candidate George Bush win the election and thus head off the danger of protectionist trade policies under the Democrats.

A new dollar rally followed in 1989. For the first time since 1985–86, the official message switched from a desire for "exchange rate stability around recent levels" back to an implication that the current strength of the dollar was not justified (Dobson 1991, table 4.8, p. 66): in the communiqué of a Washington meeting in September 1989, the G-7 "considered the rise in recent months of the dollar inconsistent with longer run fundamentals."

The yen, in particular, weakened against the dollar at the end of the decade,

28. Called the "G-7 bear trap" by Destler and Henning (1989, 66). The intent of the intervention was to "bridge" until substantial improvements in the U.S. trade deficit materialized, at which time market sentiment in favor of the dollar could take over. In the event, this plan worked quite well (Dobson 1991).

in association with political scandals in Japan in 1989 and an investor shift out of Japanese security markets in early 1990. Japanese officials apparently thought that, having supported the U.S. currency earlier, the Americans should now return the favor and support the yen. U.S. authorities had bought yen and marks in 1988 and 1989 to dampen the appreciation of the dollar. But a Paris G-7 meeting in early April 1990 produced no support for Japan (beyond a statement that the ministers had "discussed . . . the decline of the yen against other currencies, and its undesirable consequences for the global adjustment process" [Dobson 1991, table 4.8, p. 66]).

5.1.11 Exchange Rates Policies in Other Parts of the World

Most political discussion of "the dollar" does not bother to distinguish what partner currencies are intended or what their relative weight is in the basket. Some standard weighted average of the major industrialized countries is usually used when precise numbers are needed, while the mark and—especially—the yen often come in for extra attention, by virtue of the importance of Germany and Japan in international trade and finance. The lack of American concern with other currencies stems in part because the various dollar exchange rates are highly correlated and in part because the less-important currencies are considered esoteric in the U.S. political sphere.[29] Nevertheless, some specific issues concerning other currencies did arise in the 1980s and are worth mentioning both as they relate to the dollar and to the extent that they shed light on American thinking regarding foreign exchange markets in general.

First, after the LDC debt crisis surfaced in August 1982, it became necessary for many countries in Latin America and elsewhere to take policy steps to convert their existing trade deficits into trade surpluses and thereby earn the foreign exchange to service their international debts. High on the usual list of such policy steps is the devaluation of the currency. The Mexican peso, Brazilian cruzeiro, Argentine peso, and many others underwent repeated large nominal and real devaluations. For the most part these devaluations were components of policy packages taken under the guidance, indeed insistence, of the International Monetary Fund and with the full support of the U.S. government. But demurs were occasionally heard from two different sources within the U.S. political galaxy. A few U.S. industries that faced competition from these countries charged that the devaluations represented subsidies or other unfair trading practices and were sometimes supported in these charges by protectors in the Commerce Department or in the Congress. An example was charges by the U.S. copper industry that they faced unfair competition from Chile in the form of a devaluation of the Chilean peso.

The other source of protest was more philosophical than political: the "supply-siders" argued that devaluation, like fiscal austerity (the twin officially

29. Recall the famous quote from the Nixon tapes, "I don't give a ——— about the lira."

sanctioned policy for problem debtors), was not an effective or desirable way to improve the trade balance because it had no real effects. The supply-sider viewpoint deserves attention—if for no other reason than that it was represented in the Reagan administration, especially at the beginning, with sufficient vigor, for example, to produce the 1981–83 tax cuts.

Another major nondollar currency development of the 1980s was the movement toward enhanced monetary and financial unification within Europe. The founding of the European Monetary System (EMS) by Giscard and Schmidt in 1979 had been portrayed at the time as something of a challenge to the primacy of the dollar, and policy toward the EMS at the U.S. Treasury had been at best neutral.[30] But, when "Europe 1992" frenzy caught fire in Europe in 1988 and generated some fears of a "Fortress Europe" in the American Congress, media, and business communities, the attitude of the administration ranged from indifferent to benign. This benign indifference particularly characterized the decade's developments on the monetary side: France's retreat from the go-it-alone expansion and controls on capital outflow that the Socialists had instituted in 1981, the agreement by EMS members to phase out all capital controls by July 1990, and the completely unanticipated decision by East and West Germany in 1990 to undertake monetary unification.[31] All three events tended to be welcomed as further signs of the worldwide free market revolution that Ronald Reagan had helped start.

The Europeans, however, often feel that the U.S. policymakers are insufficiently appreciative of EMS concerns, for example, of the way that the long-awaited depreciation of the dollar in 1985 might put strains on the cross-rates between the deutsche mark and the weaker currencies in the EMS. After the Plaza Accord, Treasury officials thought that the Germans had not done their agreed-on share of intervention. This view was expressed by Mulford at a G-5 deputies meeting in Paris in November 1985. The Germans explained that the Bank of Italy had sold over $2 billion in place of the Bundesbank so as to avoid putting upward pressure on the lira/mark cross-rate. They considered American reluctance to accept this explanation to be a sign of indifference to the EMS (Funabashi 1988, 27–30).

A third area of the world that featured interesting exchange rate developments was the East Asian newly industrialized countries (NICs): Korea, Taiwan, Hong Kong, and Singapore. Here U.S. policy played a determining role. In 1986 and 1987, there became fashionable the view that the explanation for the lack of improvement in the U.S. trade balance since February 1985 was that the traditional indices of the U.S. "effective exchange rate" vastly overstated the depreciation of the dollar that had taken place, by giving excessive

30. Funabashi (1988, 31) explains views within the Treasury.

31. One striking development of 1990 that was presumably in large part a consequence of the fall of Communism in Central Europe was the appreciation of the mark and other European currencies.

weight to the yen and European currencies: that such trading partners as the East Asian NICs, Brazil and Mexico (newly important competitors in manufactures) and Argentina, Australia and Canada (traditional competitors in wheat and beef in third-country markets), had little or no representation in the indices and that their currencies had *not* appreciated against the dollar.[32]

The two countries that came in for particular attention were Korea and Taiwan. (Singapore and Hong Kong were relatively exempt from criticism because both follow free trade policies. The Latin American countries had the excuse of difficult debts to service.). As of 1986, the new Taiwan dollar had only begun to appreciate against the U.S. dollar, and the Korean won still had not begun to do so, even though both countries had large trade surpluses. The U.S. government soon began to apply pressure on the two (as Fred Bergsten first urged in Seoul in July 1986), and the currencies were in fact allowed to appreciate relatively strongly. In the periodic reports to Congress required by the Omnibus Trade Bill of 1988, the Treasury focused heavily on Korea and Taiwan. In the October 1989 report, the Treasury announced the beginning of negotiations that went beyond simply pressuring Korea to appreciate the won, to push for a general liberalization of Korean financial markets and conversion to a market-oriented foreign exchange system, presumably meaning a regime of free floating.[33] There was a general appeal to the superiority of free market principles and a citation of the precedent of the yen/dollar talks.

5.2 Competing Economic Theories

Policies that are adopted are naturally the outcome of the positions held by various interest groups and policymakers and their interactions through the political process and their relative power. Secs. 5.4 and 5.5 of the paper discuss the competing interest groups and policymakers. Sec. 5.3 discusses the various possible positions regarding exchange rate policy among which they choose. In the area of exchange rates, the links from policy tools to the determination of the exchange rate, and even the links from the exchange rate to the economic welfare of various groups, are not entirely certain. For this reason, the differing models or views as to how the foreign exchange market (and the rest of the economy) operates can be as relevant as differing economic interests in determining the positions taken by various actors. Thus, in this section I begin with a brief discussion of alternative exchange rate theories.

32. A few economists at regional Federal Reserve banks initially overstated the case by including the Latin American countries in a comprehensive *nominal* exchange rate index and proclaiming that the depreciation of the dollar had in fact not taken place! A properly computed comprehensive *real* exchange rate index shows that the 1985–87 depreciation of the dollar was less than one would think if the other countries were not included but that the difference was not large.

33. Korea agreed to move to a so-called Market Average Rate system in March 1990 (see Frankel 1993).

5.2.1 Trade Balance Equilibration

A regime of purely floating exchange rates has held roughly for the United States since 1973 and held precisely in the early 1980s. Under such a regime, the exchange rate is determined in the private market and adjusts to clear supply and demand for foreign exchange without any intervention by the monetary authority. An old-fashioned view of exchange rate determination is that the supply and demand for foreign exchange are dominated by exports and imports (respectively) so that under floating rates the exchange rate adjusts so as to clear the trade balance. What makes this view old-fashioned is that foreign exchange markets today are dominated by financial transactions, rather than by trade, and have been ever since the major industrialized countries removed their major controls on the international flow of capital. The importance of international capital flows explains why the record U.S. trade deficits of the mid-1980s did not immediately produce an equilibrating depreciation of the dollar: the deficits were easily financed by massive borrowing from abroad. Some observers, however, professed to be surprised by this development and argued that the magnitude of the U.S. trade deficit in itself was evidence that floating exchange rates were not operating "as they were supposed to" and that some reform was therefore called for (Murchison and Solomon 1983).

One consequence of the trade balance equilibration view is the implication that, if one country adopts a policy change that differs from that of its neighbors (e.g., the fiscal expansion adopted by the United States in the 1980s), under a floating exchange rates the effects are felt entirely within the domestic economy, rather than being in part transmitted abroad, for example, via a domestic trade deficit and foreign trade surplus. It would in turn follow that, under floating rates, there is little need for international coordination of macroeconomic policy of the sort agreed on at the Louvre.

Large international capital flows are the most important of several ways in which this old-fashioned "insulation" result can be invalidated. Nevertheless, for the case of changes in monetary policy, leading multicountry econometric models suggest that it is in practice not far wrong to think that the exchange rate adjusts so as to produce little effect on the trade balance and little international transmission (Frankel 1988a). For fiscal policy, on the other hand, the trade balance and transmission effects are typically even greater under floating exchange rates than under fixed rates. Thus, it is no surprise that record U.S. trade deficits and European trade surpluses emerged beginning in 1983 or that calls for international coordination of policy followed.

5.2.2 Monetarism

For many, the most commonsensical modern view of international monetary economics was that of the monetarists. Among the relevant tenets of monetarism are (i) a belief in the central role of the money supply, particularly for determining the price level and exchange rate; (ii) a strong preference for low

and stable growth in the money supply, so as to give price stability; (iii) suspicion of the motives and abilities of the Federal Reserve Board and an axiomatic belief that the country is more likely to get the proper sort of monetary policy if the Fed is brought more directly under the control of the political process (i.e., Congress or the Treasury); (iv) faith in free markets in general; and (v) extension of the free market philosophy to include the virtues of a freely floating exchange rate so that any country that prints too much money has to bear the burden itself in terms of inflation and currency depreciation. This last, the belief in floating exchange rates, was a position that Milton Friedman (1953) had advanced almost alone, at a time when such a change in the exchange rate regime seemed a remote pipe dream.

The monetarists entered the 1980s riding high. Largely as a response to the inflation of the 1970s and the other failures of Keynesian economics, the views of Milton Friedman and his followers had gone from those of an outlandish minority to wide acceptance and had supposedly been adopted as official policy by the Federal Reserve Board. At long last, a member of the Shadow Open Market Committee, Beryl Sprinkel, was appointed undersecretary for monetary affairs (1981–84), the position in the Treasury that traditionally has had responsibility not only for monetary affairs but for the exchange rate and other matters of international finance as well, and another, William Poole, was appointed to the President's Council of Economic Advisers (1982–85).

It was downhill from there. Intellectually, the monetarists were soon faced with the breakdown of their most cherished relation, that between money and prices. The big fall in velocity in the early 1980s caused the Federal Reserve Board to abandon its monetarist rule (in mid-1982 de facto, and several years later explicitly). Politically, their champion Sprinkel, who duly lectured the Fed from 1983 to 1986 that its rapid rate of money growth would soon produce a resurgence of inflation, was overruled by the secretary of the Treasury, who sought to pressure the Fed for *faster* growth, for the usual reasons of political expediency, particularly in the election year, 1984. This spectacle must have been an edifying lesson for the monetarists on the political economy of monetary policy. (Refer back to tenet iii above.)

In interagency meetings and public appearances, Sprinkel tried to explain the appreciation of the dollar as due to the administration's success at bringing down the rate of inflation. Such a factor could explain a *nominal* appreciation but not the *real* appreciation of the dollar in the early 1980s, which was almost as big as the nominal appreciation (as is readily apparent in fig. 5.1 above). Nor, for that matter, could the monetarist view explain the clear observed increase in real interest rates. With both the relation between money and prices and the relation between the price level and the exchange rate breaking down, the monetarists were in heavy retreat by the latter part of the decade. Sprinkel was not happy with the Treasury's 1985 conversion to managed exchange rates, but by then he was not in a position to affect policy on that topic.

5.2.3 Overshooting

The theory that *could* readily explain an increase in the real interest rate and a real appreciation of the dollar was the mainstream textbook macroeconomic view subscribed to by Feldstein and Volcker, among others. As explained in sec. 5.1 above, the two variables are closely associated: the increase in the real interest differential signals an increase in the expected rate of return on dollar securities; international investors respond to the enhanced attractiveness of dollar securities by increasing their demand for them, which causes the dollar to appreciate. The elegant seminal statement of this process was the overshooting model of Dornbusch (1976). In the overshooting equilibrium, everyone in the market agrees that the dollar has become "overvalued" in the sense that its current value is greater than its long-run value and that it will have to depreciate in the future; the market's expectation that the dollar will depreciate in the future is just sufficient to offset the higher interest rate that dollar assets pay, with the result that investors view dollar and nondollar securities as equally attractive in this equilibrium.

The overshooting model had some major difficulties of its own. Although the model could account for the *fact* of the dollar appreciation and for the *magnitude* (at least as of early 1984), it could not explain the *duration* of the appreciation, a long, drawn-out process that lasted until February 1985. In theory, the appreciation should have occurred in one jump (e.g., when the magnitude of the budget deficits became known), or in two jumps (e.g., beginning with the monetary contraction of 1980), or at most in four or five jumps (as bits of information on the monetary/fiscal policy mix came out). It should then have begun its gradual return to long-run equilibrium. As described in section 5.1.5 above, from mid-1984 on, far from beginning its return to long-run equilibrium, the dollar continued to appreciate at an accelerated rate, in the face not only of an ever-worsening trade balance but of a real interest differential that had begun to diminish as well. It appeared that the dollar was "overshooting the overshooting equilibrium." This was definitely *not* how floating exchange rates were supposed to behave, and observers increasingly began considering alternatives.

5.2.4 New Classical Macroeconomics

It was clear that the last 20 percent real appreciation of the dollar up to February 1985 could not be correlated with readily observable, standard, macroeconomic fundamentals. That left two possibilities. The first theory, coming from the new classical macroeconomic school, says that movements in the real exchange rate come from fundamental shifts in "tastes and technology" that may not be observable. Although most proponents of the new classical school are notorious for omitting to suggest what the specific fundamental shifts might be in any particular episode, others have suggested that Reagan reduc-

tions in tax rates, especially on capital income, could be the explanation behind the appreciation of the dollar in the early 1980s (e.g., Dooley and Isard 1985; Bovenberg 1989).[34]

This school of thought provides the most respectable intellectual foundation for the "safe-haven" view of the strong dollar that was so prevalent in the first Reagan administration. But many observers find it implausible that there could have been a shift in taste toward American goods or an increase in U.S. productivity, or tax effects, sufficiently large to explain an upswing in the value of the dollar as large as that from mid-1984 to February 1985, only to be reversed rapidly thereafter. At the Plaza in September 1985, the Treasury abandoned the previous line that the value of the dollar was an indicator of American economic strength. One obvious motivation was the awareness that the downward trend that had appeared over the preceding six months would, under this theory, be interpreted as evidence of American economic weakness.[35]

5.2.5 Speculative Bubbles

The second possibility is that the final stage of appreciation of the dollar in February 1985 was an example of a speculative bubble: a self-confirming increase in the value of the dollar arising from purchases of dollars by speculators who think that it will appreciate. The standard theory of speculative bubbles has the advantage that it can be perfectly consistent with rational expectations: a speculator cannot necessarily expect to make money from the knowledge that the market is in a bubble because he does not know when the bubble will burst. But the standard version of the theory has the disadvantage that it has nothing to say about what gets such speculative bubbles started.

Recent formulations of fads and speculative bubbles that are not necessarily rational focus on the existence of different classes of speculators: one class that forecasts on the basis of macroeconomic fundamentals and another that just tries to guess which way the rest of the market is going. The apparently perverse increase in the demand for dollars in 1984–85, for example, might be explained by the decreased confidence that speculators were placing in fundamentalists' forecasts of future depreciation and the increased confidence that they were placing in the extrapolations of "technical analysts" (Frankel and Froot 1990; Krugman 1985; Marris 1985).[36]

5.2.6 Portfolio Balance

For present purposes, the most important aspect of the portfolio-balance model is that it adds a policy tool: its says that even *sterilized* foreign exchange

34. This view was also put forward by CEA members Niskanen and Poole in the 1985 *Economic Report of the President.*

35. In this sense, Secretary Baker was jumping on the bandwagon rather than leading it.

36. Technical analysts, also known as "chartists," use such atheoretical techniques as extrapolating past trends in the exchange rate by noting whenever the short-run moving average crosses the long-run moving average.

intervention, that is, intervention that does not change money supplies, can affect the exchange rate. The reason is that investors are assumed to view long positions taken in various currencies as imperfect substitutes for each other, even if they are not holding actual foreign currency. Other approaches, such as the monetarist model, by contrast, are quite firm that only to the extent that intervention changes money supplies (in which case it is just a species of monetary policy) can it have an effect. This is the position Beryl Sprinkel took, for example, when his French counterpart Michel Camdessus tried to argue the desirability of foreign exchange intervention in preparations for the 1982 summit of G-7 heads of state at Versailles (Putnam and Bayne 1987, 133).

Another aspect of the portfolio balance approach is that it implies that, although trade balance equilibration is not operative in the short run, it is operative in the long run. Because a deficit country must borrow to finance its deficit, the accumulation of international indebtedness over time will eventually force its currency to depreciate. Some would say that mounting indebtedness is what finally forced the dollar down during the period 1985–87.

5.3 Competing Views on Desirable Exchange Rate Arrangements

Differing models as to how the foreign exchange market operates translate into different views as to the appropriate government response. But it is not a one-to-one correspondence.

5.3.1 Leave the Foreign Exchange Market Alone

There are four principal variants of the school of thought that says that the government should allow the foreign exchange market to function freely on its own. The most extreme position, held by monetarists and the new classical school, says that there is no need to be concerned about exchange rate fluctuations because they have no real effects. The simplest form of this argument claims that movements in the real exchange rate are nonexistent because movements in the nominal exchange rate serve only to offset differences in inflation rates. But this view steadily lost adherents as the 1980s progressed because it was evident that the nominal appreciation of the dollar was almost fully reflected as a real appreciation of the dollar. The more sophisticated form of the argument (the new classical view, mentioned above) holds that, although there clearly are real fluctuations in the exchange rate, these are fluctuations due to real changes in productivity or tastes and would have taken place anyway, even if the exchange rate had not been freely floating. An increasing number of observers also found this view harder to swallow in 1984–85, but the vote was far from unanimous.

Even among the large majority who agree that exchange rate movements have real effects on the trade deficit and other important variables, there are other viewpoints that lead to the conclusion that the government should refrain from interfering. One is the view that exchange rate movements are the natural

result of changes in macroeconomic policy and may actually be desirable if one takes the changes in policy as given. In the case of the 1982–84 dollar appreciation, attributed to the widening federal budget deficit, the question was whether the dollar appreciation was desirable if one took the budget deficit as a given political constraint.

CEA Chairman Feldstein argued that it was. The strong dollar acted as a "safety valve" to distribute the crowding-out effects of the budget deficit more evenly among sectors of the private economy. The Feldstein doctrine (so christened by Fred Bergsten) held that, even if policymakers were somehow able to force the dollar down without changing fiscal (or monetary) policy—for example, by sterilized foreign exchange intervention or capital controls—the favorable effects on the export- and import-competing sectors would be more than offset by unfavorable effects: the lost capital inflow would result in real interest rates even higher than those prevailing at the time, which would hurt those sectors of the economy (such as capital goods) where demand is sensitive to the real interest rate. The result would be a "lopsided recovery" (CEA 1984; Feldstein 1984).

One related viewpoint refuses to take fiscal and monetary policy as given. It argues that exchange rate targets or other financial gimmickry can deflect political resolve to deal with budget deficits and other domestic objectives that ultimately may be more important than the exchange rate or the trade balance.[37] Another argues that, if central banks are encouraged to intervene in the foreign exchange market, they will gamble away the taxpayers' money, to little avail.[38] A final viewpoint is that floating rates allow a greater degree of policy independence among countries that do fixed rates or managed floating (even if they do not allow complete insulation as held by the trade balance equilibration view) and that such decentralization of national policy-making is best because each country is the best judge of its own needs (Corden 1983).

5.3.2 Commit Monetary or Fiscal Policy to Helping Stabilize the Exchange Rate

The argument that allowing the full effect of the mix of monetary and fiscal policies to be reflected in the exchange rate maximizes the chance that those policies will be adjusted appropriately has a mirror-image argument on the other side: committing countries to exchange rate targets maximizes the chance that monetary and fiscal policy will be appropriate.

Many believe that the government should commit to some degree of stabilization of the exchange rate. One of the more prominent and practical proposals is the Williamson proposal for target zones. Part of the argument for making

37. A counterargument that places more weight on the exchange rate and trade balance objectives is based on the political economy point that Congress tends to adopt damaging protectionist policies when a dollar appreciation increases the trade deficit. Bergsten (1982, 1984), e.g., argued that, for such reasons, the exchange rate objective should be given increased weight.

38. This concern is common among the monetarists.

such a commitment is that, even though macroeconomic policies will ultimately have to be adjusted in order to keep the exchange rate within the band, such adjustment is desirable. Williamson (1983, 1987) has argued, for example, that, if target zones had been in place in the early 1980s, the Reagan administration would have been forced to abandon its policies that were producing excessive budget deficits.[39]

5.3.3 Attempt to Decouple the Exchange Rate from Other Macroeconomic Policies

For anyone aware simultaneously of the trade costs of an overly strong dollar, the inflationary consequences of an expansionary monetary policy to depreciate the dollar, and the political difficulties in cutting the U.S. budget deficit, any sort of policy instrument that could bring about a depreciation of the dollar *without* changing monetary or fiscal policy would be a godsend. A few such instruments have been proposed.

Although *sterilized intervention* has no effect on the exchange rate in the view of many because by definition it does not change money supplies, it *can* have an effect if it changes expectations regarding future money supplies *or* if the portfolio-balance model is correct. At the Versailles Summit of 1982, the French argued that foreign exchange intervention did provide an independent and useful tool; the Americans agreed to form an intergovernmental working group to study the question (and to enact a process of "multilateral surveillance" by the Group of 5). The findings of the working group, known as the Jurgensen Report (*Report of the Working Group* 1983), were submitted to the G-7 leaders at the Williamsburg Summit of 1983.

Although the Plaza Accord is widely perceived as having strikingly reversed the position of the G-7, particularly the United States, on the question of the effectiveness of intervention, there was in fact no discussion in the Plaza deliberations or in the communiqué as to whether the intervention undertaken should be sterilized or not. Indeed, there was not much discussion at the major meetings as to what sort of monetary policies would be appropriate to support exchange rate objectives. The exception is that the Plaza Accord called for Japanese monetary policy to "exercise flexible management with due attention to the yen exchange rate" (Funabashi 1988, 265; Dobson 1991, table 5.1, p. 82). When the Bank of Japan raised its discount rate soon after the Plaza, it claimed a reduction in the yen/dollar rate as its objective, although others were less sure that this was truly its motive.

Concerted intervention, that is, by all or most of the G-7 central banks simultaneously, is reported to be more effective. There is indeed some evidence that the whole may be greater than the sum of the parts, especially if the inter-

39. Feldstein, on the other hand, has countered that, if a serious target zone had been in place in the early 1980s, the government would not have reacted to the dollar appreciation by cutting the budget deficit but would have shifted to an inflationary monetary policy sooner.

vention is *announced* to the public and if it reinforces a movement that is already under way (Dominguez and Frankel 1991; see also Mussa 1981).

Capital controls were used by the United States to lessen downward pressure on the dollar before 1973 and by Germany and Japan to stem upward pressure on their currencies. Some, such as Tobin (1978), Bergsten (1984), and Dornbusch (1986), proposed in the early 1980s that the U.S. reimpose controls to stem capital inflow or that Japan be urged to strengthen its controls on capital outflow (rather than being pressured to remove them). It was also suggested that the Japanese government could and did use *administrative guidance* to discourage Japanese investors from holding dollar assets in the early 1980s or to encourage them to hold dollar assets in 1987–88.

Most economists viewed these various instruments as unlikely to be very effective, in the absence of changes in monetary or fiscal policy. Many practitioners, however, believed that they could have an effect, at least in the short run.

5.3.4 Fix the Exchange Rate

For some countries (small and open), a fixed exchange rate may be a practical option. Here one of the major arguments for fixing the rate is to commit monetary policy to a noninflationary policy in a way that is sufficiently credible to workers and financial markets that reduced expectations of inflation help eliminate actual inflation. For a country like the United States, a fixed exchange rate is no longer a very viable option.[40]

Nevertheless, a special case of a fixed exchange rate system, the gold standard, was frequently proposed by a certain influential group, the supply-siders. The same *Wall Street Journal* editorial writers who brought us the Laffer curve in the area of tax policy also brought us the Mundell-Laffer hypothesis (which claimed that changes in the nominal exchange rate were one for one and instantly offset by changes in price levels so that devaluations had no real effects) and the proposal that monetary stability could be restored only by returning to a regime where the central bank made a commitment to peg the price of gold. This view had important adherents in the starting team at the Treasury in 1981. But, in March 1982, the Gold Commission that had been appointed to investigate such proposals submitted a negative report. By 1983, only the moderate Manuel Johnson, at the assistant secretary level, was left among the original supply-siders at Treasury. When Johnson was appointed vice-chairman of the Federal Reserve Board at the beginning of 1986, joining other recent appointees perceived as favoring easier money, some feared that gold standard proponents had taken over. But, like Thomas à Becket after he was appointed archbishop of Canterbury, the historical integrity of the institutional prevailed, and Johnson became a model of central banker rectitude.

40. McKinnon (1988), however, continued to offer specific versions of his proposal for a return to fixed exchange rates (among the United States, Germany, and Japan).

The administration continued to be susceptible to penetration by a minority of gold bugs, however. Laffer came to meetings of an academic advisory group in the White House, gold-bug think tanks like Jude Wanniski's firm Polyconomics and the Lehrman Institute were heard from frequently, and Congressman Jack Kemp was always a rival for the attentions of Conservative Republican supporters. At the October 1987 annual meeting of the IMF, Baker proposed that the G-7 add to its list of indicators the price of "a basket of commodities, including gold." This proposal was accepted by the G-7 at the Toronto Summit in June 1988, although without the explicit reference to gold, which Baker had included in his speech to outflank congressional gold bug Kemp.

5.4 Competing Interest Groups

In this section, I consider some of the major economic interest groups affected by the exchange rate.

5.4.1 Manufacturing

U.S. manufacturers were clearly hurt by the appreciation of the dollar in the early 1980s, losing export customers around the world and losing domestic customers to competition from a flood of imports.[41] In contrast to smaller, more open countries, exchange rate policy in the United States had not traditionally been a high priority in the list of issues on which the manufacturing sector would lobby in national politics. But, during the period 1983–85, as the value of the dollar continued to climb to new heights and the trade balance continued to sink to new lows, an increasing number of business groups and chief executives from large corporations lodged complaints in Washington and urged action.

Lee Morgan, chairman of Caterpillar Tractor in the early 1980s, stands out as an example of activism on the exchange rate issue, both in terms of the consistency and the earliness (starting as early as December 1981 [testimony before a House committee cited in Funabashi 1988, 70]) of his efforts and in terms of their policy payoff. The Illinois maker of construction equipment was engaged in intense competition for customers around the world with a Japanese rival, Komatsu. Morgan realized that, as a major American exporter, his interest lay with outward-oriented trade policies rather than protectionism. But he also realized that taking measures to reduce costs at Caterpillar would not be sufficient to maintain international competitiveness if they were offset by appreciation of the dollar.

Morgan's influence went far beyond that of the CEO of a typical large corporation. He could claim to be a spokesman for the business community, heading

41. Branson and Love (1988) provide statistical evidence on the sectoral effects of the strong dollar.

a task force of the influential Business Roundtable, which took a strong position on the exchange rate beginning in 1983. Furthermore, he personally had a degree of access to top policymakers that went beyond that of a typical political supporter.[42] In repeated meetings with administration cabinet members (the first one was in the White House in October 1982), Morgan argued for an activist exchange rate policy.

For the first two years, such lobbying by the Business Roundtable and others (the National Association of Manufacturers [NAM] was also vocal on the need for policies to bring down the dollar) appeared to have little or no effect on policy. But, as described in section 5.1.4 above, Lee Morgan's visit to the White House and Treasury in late September 1983 (with Murchison and Solomon) was the impetus for Don Regan's entire yen/dollar campaign. By the beginning of 1985, the number of voices from the U.S. manufacturing sector protesting the administration's neglect of the dollar and the trade deficit had multiplied greatly. This was certainly a major influence on the thinking of Baker and Darman when they finally shifted the administration to an activist position on the exchange rate.

The Business Roundtable was usually careful to say that measures to try to bring down the dollar should not be taken in isolation, that measures to reduce the federal budget deficit were an important part of the package. An interesting question was whether the economic interest of American manufacturing lay on the side of efforts to bring down the dollar, if one took the budget deficit as a fixed political constraint. In the widely accepted analysis of Feldstein, measures that did not try to work through macroeconomic policies (say, capital controls, foreign exchange intervention, or public statements)—even if effective at bringing down the dollar and reducing the trade deficit—would reduce the capital inflow and raise U.S. interest rates. The crowding out would be borne less by exchange rate–sensitive industries and more by interest rate–sensitive industries.

Neat theoretical distinctions regarding sector sensitivities tend to break down, however, as soon as one recognizes that many of the industries that are most sensitive to the exchange rate are the same as the ones that are the most sensitive to the interest rate: autos, aircraft, and capital goods in general. This may explain—if one is willing to attribute enough sophistication to business leaders—why many of them did not devote much energy to the exchange rate issue until the bubble period of late 1984 and 1985, when the dollar seemed divorced from economic fundamentals: until then, the trade-off between high

42. The Reagan administration was said by insiders to owe a large political favor to Morgan and his company, as one of three American suppliers that had heavily lost business when the government instituted an embargo on equipment being used in the construction of the USSR-Europe gas pipeline beginning in December 1981. (Caterpillar lost sales of two hundred pipe layers [Nollen 1987, 7]). It was also relevant that Caterpillar's hometown (Peoria) had House Minority Leader Robert Michel as its congressman.

interest rates and a high dollar had been regarded as inexorable, given the budget deficit.

The manufacturing leaders who had been complaining about administration neglect of the dollar all praised the Plaza Agreement of September 1985. Some, like NAM, continued to call for a weaker dollar in 1986 and 1987 and in particular to call for appreciation by Taiwan, Korea, and other NICs. But, in the late 1980s, the exchange rate was no longer a salient enough issue to rouse most of the business community to political action (Destler and Henning 1989, 130–31).

5.4.2 Agriculture

The agricultural sector is quite sensitive to the exchange rate. In theory, the effect on the farmer comes directly through the price that he or she receives for his or her product: a 10 percent increase in the value of the dollar causes an immediate 10 percent fall in the world price of the crop when expressed in dollars. In practice, subsidies and other distortions in almost every country partially insulate farmers from the international market. But inflationary monetary policies, together with specific agricultural policies, encouraged American agriculture to expand output and exports in the 1970s, with the result that, by the 1980s, they had indeed become quite dependent on exports.

The switch in the monetary/fiscal policy mix in the early 1980s and the appreciation of the dollar put strong downward pressure on dollar commodity prices. Existing farm support programs reduced the impact on the farmer by buying up large quantities of unwanted crops and making support payments that in some years were as large as total net farm income. But the existence of the large accumulated government holdings of commodities kept prices depressed for some years after the macroeconomic situation began to reverse in the mid-1980s, with the result that the effect of the programs was to spread the negative effect out over time (not to mention inflict high costs on consumers) rather than just to dampen it. The rural sector considered the 1980s a disastrous decade for it, and there was much talk of a bifurcated economy, with service-oriented California and the Northeast doing well and everybody in between (both the Rust Belt and the Farm Belt) doing poorly.

Farm lobbies came out in favor of a depreciation of the dollar, and Agriculture Secretary Block was one of the voices in cabinet meetings in 1983–85 who were concerned about the policy mix, the dollar, and the trade deficit. Agrarian populists consistently favor easier money, lower interest rates, and a weaker dollar. Ninety years ago they were championed by presidential candidate William Jennings Bryan, who campaigned against the "cross of gold," the commitment to the gold standard that was keeping money tight. In the early 1980s, a *return* to the gold standard was seen as a way of getting easier money by supply-siders like 1984 presidential candidate Jack Kemp (Frankel 1986). At the beginning of 1986, agrarian populism got a champion appointed to the

Federal Reserve Board: Wayne Angell, who, at the time, was considered to be in favor of easy money. One observer has included the Farm Aid movement as one of the pressure groups that in 1985–86 successfully protested the high dollar and trade deficit, leading to a switch to policies of intervention in the foreign exchange market and easier money.[43]

Although the agricultural sector was clearly in the camp opposed to the strong dollar, it did not expend a great deal of lobbying time or expense on this particular issue. Obvious explanations include that lobbying resources expended directly on farm legislation had a greater payoff, and that a serious attack on the macroeconomic source of the appreciation (the budget deficit) would likely include cut-backs on farm subsidies (Destler and Henning 1989, 124). But there is another possible reason why efforts to bring down the dollar, even taking the budget deficit as given, may not have been clearly in the farm sector's interest: interest rates. The high real interest rates that resulted from the 1980s switch in macro policy mix were as much a source of negative pressure on commodity prices (via low inventory demand) and of financial distress for farmers (many of whom were heavily in debt) as the high dollar. Thus, the commodity sector faced the same trade-off between interest rates and the dollar as such industries as capital goods, autos, and aircraft: an effort to bring down the dollar *without* changing macro policies—even if successful—would be a mixed blessing in that it would probably lead to even higher interest rates.

5.4.3 Labor

In classic Hecksher-Ohlin-Samuelson trade theory, the interests of labor and capital (or land) should line up on opposite sides, according to whether the manufacture of exports and imports is intensive in their use. In practice, their interests seem to fit better the "specific-factor" model. Auto workers and auto capitalists, for example, both have a lot invested in the auto industry and thus ally themselves more closely with each other in questions of trade than with workers or capitalists, respectively, in other industries.[44] In the case of the strong 1980s dollar, this means that labor in the manufacturing sector was opposed to the strong dollar in the same way as managers and owners in that sector.

Relative to the agricultural sector, labor had a head start in the sense that the trade deficit had already been a priority concern for some time (particularly in the sectors badly hurt by import competition in the 1970s: auto, steel, and textiles). The AFL-CIO, for example, came out against the administration's neglect of the dollar and its implications for the trade deficit in early 1984. But labor representatives gave less priority to the exchange rate issue than the business community did, in part because they tended to be more enamored of

43. See Havrilesky (1990, 57), who sees this episode as fitting a "public choice" theory of how monetary expansion follows after a period of redistributive policies.

44. See Frieden (1990, 13–19), who argues that the steadily increasing degree of international capital mobility is detaching the interests of the "capitalist class" from sector-specific policies.

industrial policy as an alternative antidote for the trade deficit (Destler and Henning 1989, 122–24).

5.4.4 Sectors That Benefit from a Strong Dollar

There are a number of actors in the economy who benefit from a strong dollar, most obviously consumers, firms that import inputs (such as oil and semiconductors), and the importers themselves (including shipping, marketing, and retail). The entire segment of the economy composed of goods and services that are not traded internationally clearly benefits from an increase in the price of their output in terms of the price of the internationally traded segment of the economy. The strongest case, in theory, is the construction industry. In the first place, the tradable component there is close to zero. In the second, measures to force down the dollar at the expense of a cutoff in capital flows and an increase in real interest rates would hurt the construction sector more clearly than any other.[45]

All the sectors just named during the strong-dollar period were in fact silent on the exchange rate issue. Part of the explanation is that constituents with grievances tend to speak louder in the political process than constituents who are benefiting from the current state of affairs. Much of the explanation is that the links from the exchange rate to their economic welfare are less tangible, certain, and well understood than is the case for the sectors hurt by the strong dollar. American consumers are notoriously unaware of their own fondness for imports.

In the case of interest-sensitive industries like construction, even though their lobbying representatives did not focus on international factors, they always favored a reversal of the early 1980s pattern of monetary contraction, fiscal expansion, and high real interest rates. Furthermore, the monetary authorities were fully aware that they would become a source of political pressure in the event that a cutoff of foreign capital inflows forced up interest rates.

5.4.5 Banks and Other Financial Institutions

Henning (1990, 41) argues that many U.S. banks were "unsympathetic to industry's problems in the early 1980s. With far less leverage over the management of industrial enterprises than their foreign counterparts, some bank CEOs hoped, with the Federal Reserve, that the appreciation of the dollar would force rationalization and cost-saving upon what they perceived to be a spendthrift and undisciplined manufacturing sector."

At a large 1985 meeting sponsored by Congressman Jack Kemp and Senator Bill Bradley, some representatives of the banking and financial community were among the few defenders of a laissez-faire exchange rate regime, against

45. Frieden (1991, 448) argues that the Reagan administration's polices may have been a deliberate response to the interests of its "principal bases of support in the defense community, in real estate and related sectors, and in the international investors group, [where] pressures were for increased spending on nontradables."

the many industrial executives and other participants who had gathered to rally around efforts to bring the dollar down. Lester Thurow declared that the issue was a syndrome familiar from the United Kingdom, in which the financial community in the City of London supports a strong currency while the manufacturing cities support a weak currency. In American terms, it would be "Wall Street" versus "Main Street." But John Bilson, a self-described Chicago currency speculator, responded that the issue is not a strong dollar versus a weak one but rather a highly variable dollar, from which currency traders profit, versus a stable dollar, which industry finds more conducive.

Foreign exchange trading is big business for banks, in terms of both volume (over $110 billion a day in 1989) and profit. Econometric causality tests suggest that higher exchange rate volatility leads to higher dispersion of opinion across market participants (as reflected in survey data) and that higher dispersion in turn leads to a higher volume of trading (Frankel and Froot 1990). Exchange rate volatility is also clearly in the interest of those who make their living trading foreign exchange futures and options on the Philadelphia and Chicago Mercantile Exchanges; these instruments did not even exist under the fixed exchange rate system that ended in 1973. In short, one could explain on simple self-interest grounds a tendency for the financial community to be more supportive of floating rates than the rest of the country.

Two representatives of the financial community, in particular, spoke out against the government's 1985 switch toward trying to stabilize exchange rates. In 1986, the Chicago Mercantile Exchange formed a group called the American Coalition for Flexible Exchange Rates to lobby against exchange rate management. In 1987 and 1988, the Economic Advisory Committee of the American Bankers' Association also offered public statements against interfering with floating rates (Destler and Henning 1989, 131–36).

The large New York banks, however, for the most part stayed away from this sort of activity, and there is no reason to believe it had much impact (Destler and Henning 1989).[46] Even though exchange rate volatility is a boon to the foreign exchange trading room, it can be a headache to bank divisions that deal with international borrowing and lending, in the same way as it is to the international operations of nonfinancial corporations.[47] In any case, lobbying the government in favor of volatility would be too antisocial a mode of behavior for most financial institutions to engage in. Henning (1990 p. 41) concludes that most bankers "neither actively opposed nor supported those corporate of-

46. Destler and Henning explain that one reason that much of the banking community viewed with concern Baker's attempt to manage exchange rates (at the Louvre, in particular) is that it would threaten the independence of the Fed in setting monetary policy.

47. One view is that there is a relevant split *within* the financial community, between Chicago-based traders of futures and options, who profit from volatility, and the New York–based investment bankers, who—exercising influence through the secretary of the Treasury and Washington regulatory agencies—have sought in recent years to reign in the freewheeling ways of the Midwesterners.

ficials from the real sector who called for a depreciation of the dollar in 1982–85."

One place where the New York financial community has secured the help of the government is in putting pressure on countries in East Asia and elsewhere to open their financial markets to greater participation by U.S. firms. Such issues would properly fall in the sphere of trade policy rather than exchange rate policy, but for the Treasury's linking them to the campaign to appreciate the yen in 1984 and the won in 1988–90. In the yen/dollar talks, Don Regan put high priority, for example, on the Tokyo Stock Exchange making some seats available to American securities companies.[48]

5.5 Competing Policymakers

A policy-making agency determines its stand on an issue on the basis in part of the ultimate goals of its constituents (e.g., low interest rates or a low dollar) and its perceptions of the link between policy instruments and economic goals. Actual policy is then determined by the interaction of the agencies with each other and with the media.

5.5.1 The Federal Reserve Board

In the United States, the Treasury has primary responsibility for intervention, while the Fed has official responsibility for monetary policy. Indeed, in practice the Treasury usually determines intervention in the foreign exchange market, even though the Federal Reserve Bank of New York is the agent that undertakes all intervention in a mechanical sense, and even though the foreign exchange reserves that are used are the Fed's own as often as the Treasury's.[49] Economic theory says that it should be virtually impossible to determine exchange rate policy separately from monetary policy. But the politics of this attempt at decentralized responsibility have their own logic.

In 1984 and 1985, Volcker, concerned about the trade deficit, supported the idea of some amount of foreign exchange intervention to try to bring the dollar down. This put him in conflict with the Treasury, particularly with Regan and Sprinkel in 1984. There was little question of the Fed chairman trying to overcome Treasury objections to intervention; Volcker was well advised to save most of his ammunition to protect Fed independence on monetary policy and a bit to snipe at the fiscal policies that were at the root of the trade deficit. But

48. The first beneficiary turned out to be Merrill-Lynch, the company of which Regan had previously been chairman (Frankel 1984, 47).

49. Over the years, some Treasury officials have taken the position that the secretary of the Treasury, as the chief financial officer of the government, has the ultimate legal authority over intervention even when it is conducted with the Federal Reserve's own money. Fed officials like Paul Volcker point out that such claims are not based in any legal statute, such as the Federal Reserve Act, which gives the central bank its independence, but agree that the Fed has never challenged Treasury supremacy in this area in practice and is unlikely to do so in the future.

Volcker clearly welcomed Baker's 1985 abandonment of the position that the strong dollar was a good thing. He did not view the Plaza as putting undesirable constraints on monetary policy.

Soon after the Plaza, the positions had switched, with the Treasury in favor of further depreciation of the dollar and Volcker warning of the dangers of a speculative run. The Fed had no choice but to go along when the Treasury wanted to intervene. But, during the remainder of the decade, the central bank played the traditional role of the party more concerned about the dangers of a free-fall of the currency and an increase in inflation.

By 24 February 1986, the balance of power at the Federal Reserve Board had swung away from Volcker in favor of the recent easy-money Reagan appointees, who voted a reduction in the discount rate against the opposition of the chairman in a famous "palace coup." Volcker then managed to persuade Governors Preston Martin and Wayne Angell to defer the discount rate cut until he could arrange similar coordinated cuts by the Bundesbank and the Bank of Japan. The explanation offered by Volcker was that a unilateral U.S. monetary expansion would cause the Plaza depreciation to turn into an uncontrolled free-fall of the dollar.[50] But it appears clear that Volcker was also looking for a way to avoid having been outvoted by his Board, a way to save face and thereby retain the effective leadership. The chairman retreated into the complexities of international finance, knowing that this was unfamiliar territory to the others. One lesson here is that the bonds of fraternity that existed between Volcker and his counterparts at the German and Japanese central banks were stronger than the relationship between him and the recent Reagan appointees. It was not long thereafter that Vice-Governor Martin resigned from the Board.

In 1987 Greenspan inherited Volcker's concern that a weak dollar policy would be an inflationary policy, while in 1988 Nicholas Brady inherited Baker's concern that a strong dollar policy would be bad for growth and bad for the trade balance. Indeed, these actors were playing out the age-old conflict between central bankers and treasury ministers over whether money should be tight.

Vice-Chairman Manuel Johnson had responsibility at the Fed for dealing with other countries' central banks (after the death of Henry Wallich and especially after the resignation of Wallich's replacement, Robert Heller). Johnson and Mulford reportedly came into more open conflict over the dollar than did Greenspan and Brady. One story has it that, after a failure of Johnson and Mulford to iron out differences in 1989 (Redburn 1990, 63), Johnson in protest registered a technical objection to the way the Treasury was running exchange rate policy: a disproportionately large share of the intervention was being conducted with the Fed's reserves fund rather than with the Treasury's own ex-

50. Funabashi (1988, 48–49) accepts the explanation that Volcker both knew more and cared more about the exchange rate implications of such actions than did the other, more domestically oriented governors.

change stabilization fund. Later, in the aftermath of the Japanese stock market crash of early 1990, the Johnson-Mulford conflict resurfaced over whether the Fed or the Bank of Japan should be the one to ease. Johnson resigned in mid-1990, however.

Most other countries, to a greater extent than the United States, vest responsibility for exchange rate policy and monetary policy with the same authority. But, when it comes to international discussions, the U.S. "schizophrenia" seems to prevail. As noted above, the G-5 ministers, at the Plaza and subsequently, did not discuss sterilization of intervention, or even monetary policy, when deciding to take action to try to affect the exchange rate. Whether or not intervention in reality offers a tool for affecting the exchange rate that is independent of monetary policy, the policy-making apparatus is set up as if it does: exchange rate policy is discussed by the G-5 and G-7 finance ministers, while monetary policy is discussed by central bankers, for example, at G-10 meetings ten times a year at the Bank for International Settlements in Basel. Although the G-7 meetings would probably benefit from the attendance of the central bankers, the latter are not entirely sure that they want to be included. A system in which the politicians can be seen engaging in international economic diplomacy in the public eye, without binding the monetary authorities to the policies that would logically be required if the commitments to manage exchange rates were interpreted literally, is a system that has attractions for both sets of actors.

5.5.2 The Rest of the Administration

In the years 1983–84, the press contained many reports to the effect that CEA Chairman Feldstein was a lone voice of dissent within the administration, that the White House and the rest of the cabinet sided with the Treasury in maintaining that the deficit dollar problem was not a problem. In reality, Secretary of Commerce Malcolm Baldrige, Secretary of Agriculture John Block, Special Trade Representative (later Labor Secretary) William Brock, and Budget Director David Stockman were all by 1984 speaking in cabinet and subcabinet meetings on the damage done by the strong dollar.[51] The president did not himself deal with policy issues as detailed as the value of the dollar, in the sense of running or attending cabinet meetings on the subject.

Secretary of State Shultz occasionally expressed a view in private, based on his own background as an economist. In a very low-key way, he argued within the administration for dollar depreciation as early as July 1983, including even investigation of a possible "interest equalization tax" on capital in-

51. Nor did the president ever "discipline" Feldstein in any way for failing to toe the line. This would simply not have been consistent with Reagan's temperament. (Stockman [1986], e.g., reveals that his own celebrated "trip to the woodshed" for speaking out on the budget deficit never in fact took place.) This allowed Feldstein to claim, truthfully, that he had as much right to claim to be speaking for the administration as Regan did.

flow.[52] But Undersecretary for International Affairs Allen Wallis, the State Department representative at cabinet-level meetings on the dollar and the trade deficit, sided with the Treasury position that the strong dollar was good rather than bad. In any case, as already noted, Shultz recognized that dollar issues were the Treasury's turf, not his. After 1985, with the depreciation under way, the tendency for other agencies to cede primacy on this issue to the Treasury was reinforced.

5.5.3 Congress

Throughout the 1980s, Congress evinced far more concern with the U.S. trade deficit than did the White House. In the political environment of Capitol Hill, denying that a problem like the trade deficit or the strong dollar is really a problem provokes strong attacks. Many hearings were held to underscore that these were in fact serious problems. Studies were commissioned.[53] The 11–13 November 1985 conferences on the dollar organized by Congressman Jack Kemp and Senator Bill Bradley (or, more accurately, entrepreneured by their former staffers Smick and Medley) was billed as a "U.S. Congressional Summit" and had pretentions even more far reaching in scope: legislators and other representatives from foreign countries were invited, and the organizers also sought to associate Baker and Darman with the conference's views on world monetary reform. Such activities had the effect of raising public consciousness of the exchange rate as an issue.

The Congress was much more limited in the specific policy actions it could take, however. The one relevant sphere in which the Congress did have primacy was trade legislation. Although this alternative (perceived) means of addressing the trade deficit was not directly relevant to the exchange rate, there were important political links. In April 1985, Senators John Danforth (R) and Lloyd Bentsen (D) took the position that the Congress should insist on plans for addressing the exchange rate problem as a prerequisite for granting the administration the "fast-track authority" it had requested for (what was to become) the Uruguay Round of multilateral trade negotiations (Destler and Henning 1989, 104–5).

This case of specifically tying trade policy to the exchange rate issue was relatively rare. More often, congressmen simply responded to the record trade deficits by proposing trade legislation that free traders in the administration found unpalatable, unintentionally exerting pressure on the Treasury to try to bring down the dollar and thereby the trade deficit. The threat of mounting

52. Shultz gave a speech at Princeton in the spring of 1985 that some considered an important public reversal of the benign neglect policy of the first Reagan administration, setting the stage for the Plaza.

53. As was hinted at in sec. 5.1.4 above, some of Caterpillar Tractor Chairman Lee Morgan's impact on exchange rate issues was exercised via his congressmen. For example, he persuaded Senator Charles Percy to ask the GAO to investigate charges of exchange rate manipulation on the part of Japan's Ministry of Finance.

protectionism on Capitol Hill was certainly one of the major motivations for the Treasury's 1985 turnaround on the dollar. The success of the Plaza initiative at forestalling protectionist legislation is the major respect in which Baker deserves credit for a political triumph, notwithstanding the open question whether the Plaza was in fact responsible for the dollar depreciation, and notwithstanding that the trade deficit did not in fact improve in dollar terms until 1988 (and did not fall below its 1985 level until 1989).

The Congress also began to pass resolutions and consider bills that required specific action on exchange rate policy. Of several bills submitted in mid-1985, a proposal by Senator Bradley was the most specific. It would have required the creation of a "warchest" of intervention funds to be used according to the following rule: every time four consecutive quarters show a current account deficit in excess of 1.5 percent of GNP and a dollar at least 15 percent above the level corresponding to current account balance, the Treasury would be required to purchase at least $3 billion in foreign currency over the subsequent quarter. Needless to say, the Treasury was disturbed by these open assaults on its right to make exchange rate policy. This threat from the Congress was another of the factors that contributed to Baker's reversal of policy in 1985.

Even after the Plaza, skeptical congressmen continued to press for systematic reform of exchange rate policy. More bills were proposed by others, including Representative Stan Lundine (D), who, in the original version of his bill, proposed an explicit link between the exchange rate and negotiating authority for the Uruguay Round. In December 1985, the House Banking Committee passed a compromise bill that did not quantitatively mandate intervention, like the Bradley proposal, but did require the secretary of the Treasury to report to Congress twice a year on exchange rates, among other provisions. As Congress debated various bills to deal with the still-widening trade deficit over the subsequent three years, with the twist of increasing emphasis on the East Asian NICs rather than just Japan, proposals regarding exchange rates remained part of the debate (Destler and Henning 1989, 99–111).

The outcome, the Omnibus Trade and Competitiveness Act of 1988, included a large subsection on exchange rate policy. In four areas, it called for Treasury activism and, as in the House Banking Committee bill, required regular Treasury reports to the Congress: "An assessment of the impact of the exchange rate on the current account and trade balance, overall economic performance, competitive position, and indebtedness of the United States; recommendations for policy changes necessary to achieve a 'more appropriate and sustainable' current account balance; reporting of the results of bilateral negotiations with countries that manipulated their currencies; and analyses of exchange-market developments and their causes, including capital flows, and of intervention, among other things (Destler and Henning 1989, 111–13). In the first four reports submitted subsequently, the Treasury understandably evaded as much as possible the injunction to specify exchange rate and current account targets. But it took up with relish the mandate regarding countries that

"manipulate" their exchange rate, spending a very high percentage of the reports on Korea and Taiwan.[54]

5.5.4 The IMF and Other International Agencies

The International Monetary Fund has always conducted reviews of U.S. policy in annual "Article IV" consultations, as it does for any country. But the United States pays no attention whatsoever to these reviews.[55]

The IMF did in the 1980s become involved in the G-7 process. When the G-7 leaders at the 1982 Versailles Summit instructed the G-5 finance ministers to undertake at their regular meetings multilateral surveillance of the international implications of the member countries' policies, the managing director of the IMF was invited to participate.

Previously, the OECD had been the body that had seen itself as providing the technical background for G-7 economic summits. This input in theory took place through a succession of meetings of country officials that began with Working Party 3 (WP 3). In WP 3 in 1981–84, and as Economic Policy Committee (EPC) chairman in 1985–88, Beryl Sprinkel patiently explained to other countries' finance vice-ministers and central bank governors (as well as to his own country's delegation) the errors in their view of the chain of causality that ran budget–interest rate–capital flow–dollar–trade deficit. WP 3 reported to the Economic Policy Committee (EPC) which normally designated as its chair the U.S. chairman of the Council of Economic Advisors, in a mostly futile attempt to get the American team interested in the deliberations. The EPC in turn reported to ministerial meetings, which reported to the G-7 summit leaders.[56]

The Americans (as well as the British) were reportedly unhappy with "Keynesian" tendencies at the OECD and so began to place more emphasis on the IMF (Putnam and Bayne 1987, 161). Since 1986, when the G-7 leaders formalized surveillance with a system of indicators at the Tokyo Summit, the IMF Research Department has been entrusted with compiling the countries' numbers. The G-7 ministers' meetings begin with a presentation by the IMF managing director, providing an overview of the issues and his recommendations. Exchange rate issues, however, are mostly treated outside this "surveillance" context (Dobson 1991, chap. 3).

54. The results are described in Frankel (1993) and more briefly in sec. 5.1.11 above.

55. In the 1984 consultation, when the IMF staff wrote a report that subscribed to the widely accepted view that the strong dollar and the trade deficit were problems caused by the budget deficit and high real interest rates, Sprinkel responded in terms that suggested that it was the report, rather than U.S. policies, that needed to be evaluated.

56. As CEA chairman in 1982–84, Feldstein was chairman of the Economic Policy Committee. He shared with many of the other countries a belief in the deficit-dollar chain of causality, in opposition to Regan and Sprinkel. But Feldstein did not view the apparatus of international cooperation (the OECD, the G-5 or the G-7, and summit meetings) as a particularly useful forum in which to mobilize support for correction of the U.S. fiscal deficit. He may have thought that, within the U.S. policy debate, allying with other countries' governments was more likely to undermine one's stance politically than to reinforce it. (On reasons to be skeptical of coordination, see also Feldstein 1988a, 1988b.)

As noted above, the Bank for International Settlements (BIS) in Basel is the venue for regular meetings among the G-10 central bankers. While the tightly knit group of central bankers operates at a distance from the bright lights of macroeconomic policy coordination and public pronouncements on exchange rates, they are able by telephone to coordinate the timing of intervention operations or changes in the discount rate more precisely than the finance ministers are able to coordinate anything.

5.6 Theories of the Political Economy of Exchange Rate Policy-Making

A number of generalizations have been, or can be, hazarded regarding the making of exchange rate policy.

5.6.1 The Switch from Benign Neglect to Activism as a Political Cycle

The 1985 switch in Reagan administration attitudes toward the dollar was a complete about-face. (Administration spokesmen initially denied that there had been such a 180-degree change in course, but, as public approval of the Plaza grew, Baker accepted credit for it as a new policy initiative.) It would be good to have an explanation for such a shift in policy that went beyond the specifics of the change in personnel.

A benign view of the switch has been offered by Cohen (1988, 218): the political system worked in the way it should, as the administration eventually responded to Congress and the grievances of groups adversely affected, by adopting policies to bring down the dollar. A less benign view would ask, first, whether the administration should not have recognized the dollar as a problem much sooner and, second, whether even the Plaza switch was indeed an adequate way to address the trade deficit, given the lack of simultaneous progress on the budget deficit and national saving.

It has been suggested by others that there is a regular cycle within the term of a given political leader, for many countries, but especially large countries like the United States for which international trade historically makes up a relatively small proportion of GNP. In his initial vision for the country, the leader ignores concerns of international trade, finance, and exchange rates. In part this is because he has usually won his office by courting exclusively domestic constituencies. In part it is because he is not fully aware of economic relations such as that between excessive spending and trade deficits or such as constraints placed on his country by the need to maintain the confidence of international financial markets. Later in his term, problems develop, and he switches to international activism, either because unpleasant international deficits demand a response or because the prospect of international economic diplomacy offers a pleasant diversion of popular attention from domestic problems. Bergsten (1986) has argued that, when the Reagan administration switched abruptly from benign neglect of the dollar to activism in 1985, it was

following a pattern traced by Johnson in the late 1960s, Nixon in 1971, and Carter in 1978.

5.6.2 Market-Based versus Credit-Based Financial Systems

Henning (1990) puts forward an interesting hypothesis to explain why the constellation of domestic political forces does not prevent large currency overvaluations such as that experienced by the dollar in the early 1980s (or by the pound in 1980), in contrast to Japan, Germany, and France, where the interests of industry are represented with sufficient strength that exchange rate stability is a major goal of policy. The explanation essentially consists of two propositions. First, in all countries, the banking community enjoys a special access to policymakers that industry may not. Second, the financial system in the United States (and the United Kingdom) is "capital market based," meaning that industry obtains most of its external finance by issuing securities, while the financial system in the other three countries is "credit based," meaning that most corporations borrow from one or more large banks with which they are closely associated. In Japan, Germany, and France, then, the financial community can speak powerfully on behalf of private-sector interests that are unified in supporting a competitively valued and stable currency. In the United States and the United Kingdom, by contrast, bankers do not necessarily have the same incentives as industry. Furthermore, argues Henning, it is natural that the market-based financial system that exists in the two Anglo-Saxon countries creates a constituency for the dollar and pound to be international currencies while the private sector in Japan, Germany, and France resists any measures that would widen the international use of—and add to the demand for—their currencies.

5.6.3 Proposals for Reform of the Policy-Making Structure

For those who think that the difficulties stemming from the large swings in the dollar in the 1980s could have been handled better by policymakers, it is natural to ask if there are not some inherent flaws in the structure of the policy-making process that could be addressed by institutional reform.

One view is that the difficulty with the 1981–85 dollar appreciation, indeed, the difficulty with the overall macroeconomic policy mix of the decade, was lack of coordination between the United States and its trading partners. In this view, the U.S. government deliberately chose a policy mix that would give high real interest rates and a strong dollar, in order to reduce import prices, thereby "exporting inflation" to its neighbors. In technical terms, the noncooperative equilibrium is characterized by competitive appreciation, each country afraid to lower real interest rates on its own because of the inflationary consequences of currency depreciation. If this diagnosis is correct, the solution would simply be to strengthen the G-7 coordination process and use it to agree to simultane-

ous reductions in real interest rates (Sachs 1985).[57] The difficulty with this theory as an interpretation of the 1980s is that (1) only the United States, not its major trading partners, adopted a policy mix featuring fiscal expansion and (2), if currency appreciation is such an advantageous means of reducing inflation, then the U.S. policy of the early 1980s was optimal (from a selfish viewpoint), which would tend to undercut the case for reform.

A second view is that the difficulty with the 1981–85 dollar appreciation, and the overall U.S. macroeconomic policy mix, was lack of coordination between the *Treasury* and the *Fed.* The Fed refused to expand the money supply in the absence of a commitment on the part of the administration to raise taxes and cut the budget deficit because it would be inflationary. The administration (together with Congress) refused to raise taxes and cut the budget deficit in the absence of a commitment on the part of the Fed to allow interest rates to fall sufficiently because it would be recessionary. In this view, the high real interest rates and high dollar occurred simply because the two sides never could get together on the policy mix.

The relevance of this view to actual events is doubtful. It is true that Fed officials tended to be included in interagency meetings on international economic topics less often in the Reagan administration than in previous administrations. Paul Volcker and Don Regan, in particular, were often at odds in the press. Nevertheless, communication was regular, and there is no evidence that, but for the right institutional arrangement to promote cooperation, a deal could have been struck. Rather, disagreements stemmed either from differing priorities (the Fed more concerned about inflation, the Treasury about growth) or from differing perceptions as to the right model.[58]

The leading recent proposal for systematic reform of the U.S. institutional structure of exchange rate policy-making is that of Destler and Henning (1989). They argue that exchange rate policy is made by a very small circle of senior government officials in the Treasury and the Fed, is dangerously divorced from fiscal and monetary policy, and is frequently unresponsive to the legitimate concerns of private economic actors. They recommend a broadening of the process, particularly through three important changes: (1) the creation in both the House and the Senate of new select oversight committees on the dollar and the national economy; (2) the establishment of a new private-sector advisory group on exchange rates to counsel the secretary of the Treasury; and

57. Another version of the view that the problem is a lack of international coordination involves beggar-thy-neighbor "competitive depreciation," just the reverse of competitive appreciation. Here the problem with the Nash noncooperative equilibrium is that each country is tempted to follow an overly expansionary monetary policy in order to depreciate its currency and improve its trade balance, thereby exporting unemployment to its trading partners. One could view the Louvre Accord as an attempt by U.S. trading partners to address this problem.

58. If the monetary authority believes that an increase in government spending would appreciate the dollar while the fiscal authority believes that it would not, the two agencies may seek to cooperate optimally and yet still end up with a harmful policy mix (Frankel 1988b).

(3) more active involvement of agencies such as the CEA, the office of the U.S. Trade Representative (USTR), and the Agriculture and Commerce Departments (Destler and Henning 1989, 145–64).[59]

The view of this author is that, during the period July 1984–February 1985, the dollar had appreciated so far that some action such as foreign exchange intervention to try to bring it down was indeed warranted, even taking the budget deficit as given. Since all the groups that Destler and Henning would like to bring in to the policy-making process were more worried about the dollar and the trade deficit at this time than the Regan Treasury, it follows that exchange rate policy during this eight-month period might have been better had their proposed institutional reforms already been in place. Under most other circumstances, however, a broadening of the policy process in this way, in the sensitive and relatively technical area of exchange rates, could make things worse rather than better.

Exchange rate policy, like monetary and fiscal policy, is potentially vulnerable to populist pressures. Policymakers in the public eye—lacking forebearance and sometimes lacking awareness—might succumb to the temptation to tinker with international financial gimmickry so as to seem to be addressing the exchange rate issue, in place of making hard macroeconomic policy decisions. Sometimes they will refuse to devalue a currency that needs to be devalued, out of a stubborn unwillingness to admit publicly that their past policies have failed. Other times they will seek to devalue a currency that should not be, in order to gain the short-term advantage of higher output and employment, figuring that the costs in terms of higher inflation will not show up until after the next election. For such reasons, I am skeptical of proposals to democratize the policy-making process for exchange rates and would, if anything, prefer to see more power concentrated with the Federal Reserve. The Fed tends to have more of the historical memory, technical expertise, and insulation from politics that are so lacking elsewhere.

5.6.4 The Bandwagon as Paradigm

I would like to propose a common paradigm to fit the markets, the media, and the makers of policy. The paradigm is the bandwagon, by which I mean that the typical resident of each of the three worlds bases his or her actions more on what seems to be "in" at the moment than on what makes the most sense viewed in a longer-term perspective.

Consider first the markets. In theory, speculators should base their actions on an evaluation of the true worth of the currency as determined by macroeconomic fundamentals. In practice, by 1985, only five of twenty-four foreign exchange forecasting services were relying on fundamentals. (Fifteen relied on

59. One of their (quite valid) purposes in making the proposals was to make the exchange rate a deliberate policy instrument consistent with macroeconomic policy, rather than treating it as a residual.

technical analysis, three used both, and one did not specify.) This is as compared to 1978, when nineteen of twenty-three services surveyed relied on fundamentals (three on technical analysis). This lack of attention to long-term fundamentals and increasing reliance on time-series extrapolations may explain the apparent speculative bubble of 1984–85.[60]

A speculative bubble would seem to offer some scope for useful intervention by policy-makers. It is for this reason that the Plaza and other 1985 policy moves to try to bring down the dollar could be viewed as a success. But, to favor government intervention as a regular matter of course, one would have to believe that the policy-making process is systematically less liable to bandwagons than the markets, and this may not be the case.

Historical memory in both the Treasury and the Congress is notoriously short. Official views do not evolve gradually over time as more information becomes available. Rather, views change sharply with the personnel, who turn over every few years, and with their economic philosophy or perception of political advantage. The noninterventionist dogmatism of Beryl Sprinkel has come in for much criticism; the political pragmatism of a Jim Baker will usually win out in a popularity contest among journalists or congressmen, and in 1985 it happened to give what may have been the right answer as economic policy as well. But pragmatism can often give the wrong answer. Trade policy is an example where the stubbornness of the Treasury and the White House in the 1980s was fortunate and where greater accommodation to the Congress or outside interests would have given a less satisfactory outcome, from an economic viewpoint.

It may sound undemocratic to reserve exchange rate policy-making for a small elite like the Federal Reserve Board. But democracy does not mean putting every issue up for a vote every day. Our system places some policymakers under the relatively frequent and direct control of the electorate, such as the two-year-termed House of Representatives, and others farther removed, such as the members of the Supreme Count. The question is whether exchange rate policy is a more fitting topic for the former approach or the latter. Exchange rate policy would seem to be the sort of topic that is best reserved for specialists removed from political pressures.

Although the media were not considered above as a separate interest group or policymaker, they are in fact the ultimate arbiter of policy (until the historians get their turn). Most critics of the tremendous power of the media phrase their criticism in terms of the particular bias that they think the media has. But the real problem with the media is that, in its efforts to escape charges of bias, it does not undertake enough analysis. Journalists cover the stories that other

60. One could explain the continued appreciation of the dollar simply by international investors putting less weight on the fundamentalist forecasts of dollar depreciation and consequently becoming increasingly attracted to the high rates of return offered on dollar assets (Frankel and Froot 1990).

journalists are covering (so-called pack journalism). The goal is to describe current trends rather than to give opinions. The arbiters of policy can end up being arbitrary in their evaluations.

Success in Washington is often judged in a rather superficial way. The system in the aggregate works a bit like trial by fire or water in medieval times. A policy operation is a success if it is a political success, it is a political success if it is a media success, and it is a media success if it is a success in the public opinion polls. The opinion polls often resemble coin tosses because the respondents are not well acquainted with the issues that the questions concern.

It is of course true that the dollar began to depreciate in 1985, as desired. But the policymakers may just have been lucky. The initiatives taken by Jim Baker at the Plaza and other G-7 meetings were, at the time, so tentative that he could, and would, have disavowed that there had been any change in policy had they not been received well. These initiatives *were* received well, in large part because Baker's style was such a welcome relief (especially to the press) after Don Regan. Regardless of whether one believes that the dollar would have come down in 1985–87 even without the initiatives, it is certain that favorable reviews, such as those in newspaper editorials and congressional testimony, made them a political success.

The enhanced stature of Baker and the G-7 in turn meant that their pronouncements carried more weight with the markets. In 1986 and 1987, foreign exchange traders would leap for their terminals every time a report came out that Baker had said something. After 1985, G-7 meetings replaced trade balance announcements (or, in the early 1980s, money supply announcements) as the current fad variable that the markets followed.

By 1984, the market bandwagon had carried the dollar far away from a sensible equilibrium. In 1985, the interdependent bandwagons ridden by the media and the makers of policy carried the dollar back. Next time, the media/policymaker bandwagons could as easily be the ones to carry the dollar away from equilibrium.

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2. C. Fred Bergsten

The Issue

Exchange rate policy has two dimensions for the United States: national management of the dollar and, to a large extent, determination of the international monetary regime.[1] The United States reversed or sharply modified its policy in both respects on three separate occasions during the 1980s. Hence, whatever one thinks of its substantive importance, the issue area is of unusual interest in an assessment of economic policy in the past decade.

As the 1980s began, the Carter administration and the Volcker Fed were successfully attempting to *strengthen* the dollar (from its free-fall of late 1978) in part through *managed floating.* From the outset of 1981, the new Reagan administration reversed that policy: it studiously *ignored* the dollar ("benign

1. Destler and Henning (1989, 10–11) usefully define, and distinguish between, *direct* and *indirect* exchange rate policy. I address both in this statement.

neglect") and aggressively espoused *pure floating* (Reagan I). In September 1985, the administration reversed its own policy and sought to *drive down* the dollar through, among other things, renewed *managed floating* (Reagan II). In early 1987, the third shift targeted dollar *stability* and installed a new system of *reference ranges* (Reagan III).

Jeffrey Frankel's superb background paper accurately and cogently describes these changes and their economic impact. As requested by our chairman, I will focus on the decisions that were made at each key turning point, the alternatives that might have been considered at the time, and the consequences for the economy of the paths that were taken and—obviously more speculatively—those that were rejected.

Reagan I (or Regan-Sprinkel)

Despite all the well-advertised shortcomings of economic policy in the Carter administration, the Reagan administration inherited a healthy international economic position. The current account was in balance for the third straight year despite the second oil shock. The United States was the world's largest creditor country. The exchange rate of the dollar was virtually at fundamental equilibrium (in terms of trade competitiveness).[2] Trade liberalization had resumed with the successful conclusion of the Tokyo Round of the GATT.

The new administration regarded all these variables as irrelevant. It came into office with a series of extremely strong (and, as events revealed, internally inconsistent) views on how the domestic economy should be managed. No thought was given to the external consequences of its new policies or to how those external effects might in turn feed back on the domestic economy. The best evidence of this total neglect was the administration's initial projection of the current account balance for 1983: it got the level just about right, at $70 billion, but had the sign wrong.[3]

Hence, the exchange rate (and the entire external position) was viewed as a residual rather than as a policy instrument or even as an intermediate variable. An ideological aversion to governmental interference in markets reinforced this outcome, as did the view—widely shared internationally at the time—that sterilized intervention in the exchange markets had no lasting impact anyway.[4] Total laissez-faire prevailed for over four years. Indeed, by extolling the virtues of a strong dollar, the stance of Reagan I toward the exchange rate added to the overvaluation and resulting trade deficits that were fundamentally generated by the mix of very loose fiscal policy and very tight monetary policy.

From my point of view as one of the few early and vocal critics of Reagan I (see Bergsten 1981a, 1981b), the enormous irony is that the policy worked

2. As calculated three years later by Williamson (1983, fig. A-7).

3. As reported to the author by David Stockman, director of the Office of Management and Budget at the time.

4. That view has subsequently been effectively challenged by Dominguez and Frankel (1991).

for an extended period. The "riverboat gamble" of Reaganomics was that its huge budget deficits would not sustain (or even accelerate) the high rates of inflation that it inherited or, given a resolute inflation-fighting Federal Reserve, push interest rates sky high and crowd out so much domestic investment that growth would be impossible. But foreign capital inflows and the soaring dollar helped cut inflation and held real interest rates down by as much as 5 percentage points (crowding out the tradables sector instead) (see Marris 1987, 44). Benign neglect of the dollar contributed to the "victory" over inflation, permitted recovery from the recession of 1982, and facilitated the expansion of the 1980s.[5]

The *alternative* to benign neglect in 1981 was continuation of the dollar policy of the late 1970s—an effort to maintain the currency at a level that would achieve rough balance in the current account, mainly via coordinated intervention in the exchange markets (with accompanying rhetoric) and through pushing the surplus countries to grow faster (the "locomotive approach"). The cardinal question is the impact that that strategy would have had on the domestic economy: would it have "forced" the Fed to ease money to hold the dollar down, weakening the battle against inflation (although easing the recession of 1982), or would it have "forced" a tightening of fiscal policy and thus lessened the problems that plague us to this day?

Such an "alternative" policy could have made some difference on the external variables. The dollar would have risen a bit less had the United States and the G-5 sold dollars (as in 1980) and the administration displayed less enthusiasm for its climb; in particular, the last 20 percent or so of the dollar's climb in late 1984/early 1985, which then and now defies any logical explanation except as a speculative bubble, might well have been prevented by official intervention and jawboning. Less diplomatic crockery would have been broken had the United States maintained a willingness to cooperate meaningfully and benign neglect been less aggressive. Less protectionist pressure would have been stimulated in the Congress had the administrative at least tried "to defend American trade interests."

But the dollar and the trade deficit would still have soared and become Feldstein's "safety valve" for the economy.[6] I suspect that the Fed would have

5. Reagan I also "worked" in the sense that its extreme antipathy to any action on the dollar enhanced the drama, and thus probably the market impact, of the shift to Reagan II at the Plaza, as described below. However, the policy also contributed in important ways to the adoption by the administration, as Secretary Baker later admitted (in remarks to the Institute for International Economics on 14 September 1987), that "no administration . . . has granted more import relief to U.S. industry than any of its predecessors in more than half a century." The macro/monetary/dollar policy of Reagan I made it impossible for that administration to achieve its own objective of maintaining open markets at home and promoting liberalization abroad, as indicated in Paula Stern's contribution to this volume.

6. I subdivide the period Reagan I into Feldstein I and Feldstein II: the chairman of the Council of Economic Advisers touted the virtues of the strong dollar and the trade deficit as a "safety valve" in the former but switched in the latter to citing their costs as a key reason to deal seriously with the budget.

hung tough against inflation. It is hard to imagine much effect on fiscal policy.

Hence, the major impact of the alternative policy would have been, as in 1977–78 and 1986–87, on America's economic relations with its key allies. Unable and unwilling to change course at home, but concerned in this alternative scenario about incipient dollar overvaluation and trade deficits and the resulting protectionist pressures, such an administration would have strongly opposed the tightening of fiscal policy in Japan and Germany that contributed in important ways to the buildup of their surpluses (and our deficit). Both might have budged a bit, Germany because it was fighting "Eurosclerosis," and Japan to limit renewed "trade conflict." But any results would probably have been quite marginal here too: only slightly faster growth (and perhaps inflation) abroad, a slightly smaller buildup in the American trade deficit with a little less recession in 1982 and a smaller decline in the inflation rate.

The only *effective* alternative to Reagan I would have been for the foreigners to take draconian measures to restrict their capital outflows in an effort to force a reversal of America's policy mix, as proposed by a few European and American economists at the time. Given the openness of international capital flows and the markets' zeal for Reaganomics during this period, however, it would have been extremely difficult to implement such a policy. Moreover, the other countries would have choked off their own export booms (although, with less inflation from currency depreciation, it would then have been easier for them to stimulate domestic demand). They would have frontally attacked an American administration that was riding high and done so during a period of considerable East-West tension. The bottom line is that, although an active exchange rate policy might have modestly limited the costs of Reagan I, it was probably an inevitable casualty of the policy mix adopted during that period.

Reagan II (or Baker-Darman I)

The two unsustainabilities of Reagan I exchange rate policy, although slow to arrive, did occur as predicted. The *internal* unsustainability hit most clearly: incensed by record trade deficits and the administration's total neglect thereof, and goaded by a tradables sector, which finally found its political tongue after the election of 1984, the Congress threatened to pass highly protectionist trade legislation.[7] Fear of the *external* unsustainability, that is, a "hard landing" of the dollar and the economy, suddenly seemed real as well if the current account deficit continued to soar because the dollar bubble had burst in early 1985 and considerable depreciation had already occurred.[8]

7. Congressman Bill Frenzel commented to me at the time that "the Smoot Hawley tariff itself would have passed overwhelmingly had it come to the House floor in the fall of 1985."

8. The publication of Marris (1987) may have had a significant effect on thinking about this aspect of the problem. Marris's goal was of course to write a self-denying prophecy, which so far looks to have been successful to an important extent.

Hence, Baker-Darman reversed Regan-Sprinkel. They won G-5 agreement both to drive the dollar down and to resume coordinated intervention in the currency markets (à la 1978–80) to do so.[9] There was little disagreement with the new policy either at home or abroad, although questions soon arose about how *far* and how *fast* the realignment should occur.

Two alternatives might have been chosen: *earlier* adoption of the Plaza strategy and greater reliance on *domestic* policies (especially in the United States) to achieve the desired current account adjustments. The timing, however, was dictated by American politics: only after the election of 1984 did Regan and Sprinkel leave the Treasury, and only then did the domestic tradables sector muster the political courage to attack the administration's dollar policy and take its case to the Congress.[10] Given Reagan I, it would have been difficult to move to Reagan II much sooner (although the G-5 ministerial in January 1985 started the process of driving the dollar down, with much less publicity than the Plaza and much less active U.S. participation).

A *more meaningful* alternative would have been serious cooperation on "the fundamentals" as well as on exchange rates—which turned out to bear most of the burden of pursuing smaller current account imbalances. The monumental failure of Baker-Darman was their unwillingness or inability to use the external threat to convince the president to launch a serious effort to correct the problem at its source: the budget deficit. At just about the same time, Congress was launching the Gramm-Rudman-Hollings initiative, and the Senate Republican leadership developed a major budget package. But the president backed away, leaving the flip-flop on dollar policy—plus renewed exhortations to the Japanese and the Germans (à la 1977–78) to grow faster—to achieve the adjustment and avert new protectionism.

A *subalternative* would have been for the Federal Reserve to let the dollar fall much faster during this period in an effort to force the administration to make such a change in fiscal policy. The Fed had considerable leeway to pursue such a strategy throughout 1986 because of the sharp fall in oil prices and the virtual absence of inflation pressure and some incentive to do so because lower dollar interest rates would have further eased Third World debt and strengthened American banks. However, Chairman Volcker chose instead to talk down the efforts to talk down the dollar and to resist any declines in U.S. interest rates—paradoxically reducing fears of the "hard landing" and thus limiting pressure on the administration to get serious on the fiscal front.[11]

Nevertheless, Reagan II also worked to a considerable extent. Congress eventually passed the Omnibus Trade and Competitiveness Act of 1988, but it

9. The full story is in Funabashi (1988).

10. The full story is in Destler and Henning (1989).

11. On that front, "benign neglect" arose again despite the Plaza strategy: 1986 was the year of tax reform rather than fiscal contraction. And one (unexpected and unintended) result of tax reform was a sharp decline in the budget deficit in fiscal year 1987, permitting the illusion of progress on "the fundamentals," although very little had in fact been achieved.

was shorn of most of the blatantly protectionist proposals of 1985–86—due in important ways to the Plaza strategy and the clear improvement in American competitiveness from the lower dollar. On the financial side, the sharp dollar depreciation of 1985–86 was accompanied by continued large inflows of foreign capital despite lower U.S. interest rates—achieving considerable adjustment without the "hard landing." But this problem finally erupted and triggered the shift to Reagan III.

Reagan III (or Baker-Darman II)

The "hard landing" seemed to be at hand in 1987. The dollar plunged at the start of the year, while interest rates rose. Private capital inflows dried up, and foreign central banks had to finance the bulk of America's massive external deficit ($163 billion, 3.5 percent of GNP) throughout the year. The bond market dropped sharply in the spring. Black Monday hit in October.

Hence, the administration again reversed course on the dollar. Building on a yen-dollar stabilization agreement reached at the behest of the Japanese in September–October 1986, the G-5/G-7 adopted the Louvre Accord in February 1987 to try to stop the fall of the dollar and stabilize currencies within unannounced reference ranges (of ±5 percent). They maintained the stabilization effort throughout the year, rebasing the yen-dollar range downward in April 1987 and engineering the "Telephone Accord" in December that finally succeeded in stabilizing the dollar in early 1988.

The shift to stabilization at the Louvre was the closest call of the three Reagan shifts on the dollar. The move was understandable because there *was* a serious risk of a "hard landing." From the Treasury's standpoint, the Fed's unwillingness to try to counter the rise of interest rates triggered early in the year by the plunging dollar raised the prospect of heavy domestic costs if it continued the Plaza depreciation strategy. Hence, Baker-Darman decided to try to negotiate an alternative adjustment strategy with the G-7 that included throwing in the exchange rate towel.

However, there were *at least* two alternatives in 1987. The trade deficit was still rising (in nominal terms) at the time of the Louvre Accord and did not peak until the third quarter of that year. Hence, in terms of the agreed adjustment strategy and the continuing threat of both unsustainabilities, it was arguably quite premature to halt the depreciation. Indeed, stabilization around the Louvre level left the dollar overvalued and invited further trouble later—as occurred in the fall and played a major role in triggering Black Monday.

It must be recalled that the administration itself triggered the renewed dollar slide in early 1987, and letting it go further was a real alternative—which could have been chosen either by the United States or, via an unwillingness to support the dollar in an effort to (again) prompt American budget correction, by the foreign monetary authorities. Given the shift in market sentiments against the dollar and the stance of the Fed, however, seeking additional trade adjustment

via further dollar depreciation or "forced" fiscal action could have brought still higher interest rates and considerable financial disruption. It would have taken enormous nerve to let the dollar continue falling.

The better option was for the administration and the G-7 to do the Louvre but to realize that those rates could not hold for long. Hence, they should have quietly worked out a second "rebasing" to depreciate the dollar quickly and cooperatively by another 10 percent or so during the summer vacation period in August. The G-7 could thus have led the markets to a sustainable level rather than fighting additional dollar decline once past the crisis atmosphere of the spring.[12]

I believe that this course would have *avoided* Black Monday. It would have obviated the need to drive the dollar back up in the aftermath thereof. It would thus have promoted more trade adjustment and less protectionism. It would have enhanced the credibility of both the administration and the G-5/G-7. My impression is that such a strategy was rejected because of a politically inspired focus on trying to maintain stability until November 1988 and an erroneous belief that the "Louvre levels" would hold until then.

This was the one major episode of the 1980s where, *given* the basic course of fiscal and monetary policy, exchange rate policy erred and triggered events that could have levied significant costs on the American economy.[13] The basic lesson of the decade in this area, however, is that dollar policy under current institutional arrangements—in both senses cited at the outset—is largely determined by the macroeconomic policy context (both at home and abroad). As noted, different exchange rate policies—particularly regarding intervention and rhetoric—could have limited the damage to a moderate degree on several occasions, especially during Reagan I and again in 1988–89, when the United States and the G-7 failed to resist a renewed rise in the dollar that further delayed the needed adjustment. The only alternatives that would have had major effects at the critical decision points, however, would have been Machiavellian strategies to deliberately worsen the situation in the short run in an effort to force the political process to take actions that were needed in the long run—a risky course that few governments would want to pursue and that no policy regime should require to produce sustainable results.

I believe that we need a systemic change under which a regime is installed that is sufficiently oriented toward the exchange rate, such as target zones, for macroeconomic policy to be *affected by* the external outlook on an ongoing basis.[14] The European Community has done this with its European Monetary

12. Williamson's (1992) latest estimates conclude that the dollar was still overvalued by about 10 percent at the Louvre level.

13. The stock market would probably have corrected from its sharp runup earlier in 1987 in any event, and Black Monday turned out to have modestly positive effects on the economy by producing lower interest rates and some action on the budget deficit. Nevertheless, the outcome could have been much less benign, and policy should obviously seek to avoid triggering such huge market disruptions.

14. My preferred model is in Williamson and Miller (1987).

System, as demonstrated most dramatically in the case of France in 1983. If such a global system had been in place for some time before 1981, operating effectively and credibly, might it have tilted the United States away from adopting at least the extreme version of Reaganomics? If so, we could have still experienced economic success in the 1980s with fewer adverse legacies for the 1990s and beyond.

Moreover, the absence of systemic arrangements—along with the relative lack of attention paid to the exchange rate in the United States—virtually guarantees that policy in this area will continue to flip-flop as it did the 1980s. Indeed, similar reversals can be observed in the Nixon administration (from its original "benign neglect" to Treasury Secretary Connally's aggressive pursuit of devaluation in 1971) and the Carter administration (from seeking a lower dollar in 1977–78 to seeking a stable or stronger dollar in 1979–80) (see Bergsten 1986). The United States needs to pursue a new exchange rate approach, both domestically and internationally, to stabilize and strengthen the utility of this policy instrument.

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3. *Michael Mussa*

The 1980s witnessed extraordinarily large swings in the foreign exchange value of the dollar and in the U.S. current account. During President Reagan's first term, these international macroeconomic developments exerted little influence on U.S. economic policy. After 1984, however, in the face of large and expanding international imbalances and growing protectionist sentiment, and with a shift in the team of key administration officials, U.S. economic policy moved to a more active and visible concern with management of the exchange rate and the balance of payments. In discussing these critical international macroeconomic developments, and in assessing the policy responses to them, three main points deserve particular emphasis.

First, much of the movement in the foreign exchange value of the dollar and in the U.S. current account was an understandable response to other important macroeconomic developments, including especially the monetary and fiscal policies of the U.S. government.

Second, in the circumstances of the 1980s, much of the movement in the dollar in the U.S. current account was desirable from the perspective of the macroeconomic performance of the United States and other countries. This is a reasonable judgment despite the many significant problems attributable to, or manifest in, the movements of the dollar and in the U.S. current account.

Third, for the United States, operating in a system of market-determined exchange rates, there is some useful role for "exchange rate policy" that is separate from monetary and fiscal policy. Moreover, influencing the exchange rate or the current account is occasionally a significant concern of general macroeconomic policy. However, the independent influence of exchange rate policy is quite limited, and key domestic economic objectives usually dominate the conduct of monetary and fiscal policy.

These issues are discussed or alluded to in Jeffrey Frankel's excellent paper and are considered in Fred Bergsten's thoughtful remarks. Somewhat surprisingly, I find myself in close agreement with most of Fred's comments, and I have only modest differences with Jeff's discussion and analysis. These remarks will focus primarily on those issues where we have some disagreement or meaningful difference of emphasis or interpretation.

Causes of Exchange Rate Adjustments and Payments Imbalances

Since the collapse of the Bretton Woods system in early 1973, market forces have played the dominant role in determining the foreign exchange value of the dollar. These market forces, however, are sensitive to perceptions concerning the actual and expected future conduct of economic policies. After all, if economic policies kept exchange rates pegged for long periods under the Bret-

ton Woods system, it stands to reason that these policies ought to be important determinants of exchange rate behavior under a floating rate system. The influence of these policies, especially U.S. monetary policy, is apparent in the major movements of the foreign exchange value of the dollar during the 1980s. Major movements in the U.S. current account, in turn, can be explained to a significant extent (with a lag) by movements in the value of the dollar.

The Important Role of Monetary Policy

In the late 1970s, the real foreign exchange value of the U.S. dollar fell to the lowest level in the postwar era. In my view, the apparent incapacity of U.S. economic policy, especially monetary policy, to restrain and reverse the persistent rise of the U.S. inflation rate was the key reason for this dollar depreciation. Nominal depreciation was required to match the excess of U.S. inflation over that of other countries, and real depreciation reflected the "overshooting" response to progressively greater disappointment about the inability to contain the rise of inflationary pressures.

After an abortive effort to combat inflation through monetary tightening during late 1979 and early 1980, the Federal Reserve embarked on a determined and ultimately successful effort beginning in late 1980. For twenty months, despite a deepening recession, a tight monetary policy was maintained until the summer of 1982. The inflation rate was brought down from 13 percent during 1980 to 4 percent during 1982, where it remained for most of the rest of the decade. Unquestionably, this successful effort to control inflation dramatically altered expectations concerning both the likely future course of inflation and the willingness of the U.S. policy authorities to undertake determined and costly actions to combat rising inflation.

In a world where national price levels adjust relatively slowly in comparison with exchange rates and other asset prices, the modern theory of exchange rate determination predicts the response of the exchange rate to such a change in expectations. There should have been a strong real appreciation of the dollar as the "overshooting" response to the dramatic shift from growing fears of policies that tolerated a persistently rising inflation rate to a growing conviction that policies would deliver a much more moderate inflation rate. This response should not have occurred all at once, with the initial tightening of monetary policy, but only gradually, as people became increasingly persuaded that the reduction in inflation would prove enduring.

Indeed, it is entirely possible that real appreciation of the dollar in response to changing expectations of the longer-term inflation rate continued well after the Federal Reserve's shift to an easier monetary policy in the late summer of 1982. As the economic activity recovered vigorously during 1983, the inflation rate nevertheless remained slightly below 4 percent. This development provided reassurance that there would not be a rapid rebound of inflation with the onset of economic recovery, as had occurred after the abortive attack on inflation during 1980. Moreover, when some indication of rising inflationary pres-

sures appeared in early 1984, the Federal Reserve retightened monetary policy during the spring and summer. This important action, taken in a presidential election year and at some risk to the continuation of the recovery, demonstrated the durability of the Federal Reserve's resolve to resist increases in inflation.

Thus, in explaining the enormous upswing in the foreign exchange value of the dollar between the summer of 1980 and early 1985, I would assign somewhat greater importance than Jeffrey Frankel does to the shift in the perceived stance of U.S. monetary policy. There remains, however, an important part of the upswing of the dollar that is difficult to attribute to monetary policy or to any other identifiable change in economic fundamentals. This is especially so for the last 10 or 15 percent of dollar appreciation in late 1984 and early 1985.

While the decline of the dollar during 1985 and 1986 is associated with a substantial easing of U.S. monetary policy, this factor alone appears inadequate to explain the nearly complete reversal of the dollar's earlier appreciation. The U.S. inflation rate remained about 4 percent during 1985 and, under the impact of falling world oil prices, dropped to barely 1 percent during 1986. Thus, despite monetary easing, there was no substantial reason to fear that the Federal Reserve had again reversed course and would tolerate a substantial increase in the longer-term inflation rate. Accordingly, there should not have been a strong overshooting effect toward dollar depreciation in response to the easing of monetary policy.

On the other hand, the theory of exchange rate determination does imply a gradual unwinding of the overshooting effect of the earlier shift in expectations concerning U.S. monetary policy. Real dollar appreciation attributable to rising confidence about the anti-inflationary stance of U.S. monetary policy during the early 1980s should have been gradually reversed during the mid-1980s. In addition, the persistent deterioration of the U.S. trade and current account balance during 1985–86 apparently provided information suggesting that a lower real exchange rate for the dollar was needed to achieve a sustainable balance of payments position for the United States. Nevertheless, as Jeffrey Frankel suggests, when account is taken of all the "fundamental" factors, there remains room for a spontaneous reversal of earlier market enthusiasm, or for exchange rate policy, to have played a significant role in bringing down the dollar.

The firming of U.S. monetary policy from early 1987 until the stock market crash on 19 October probably helped forestall further declines in the dollar, especially during the spring, when Japanese and German monetary policy was moving toward greater ease. After the crash, the apparent concern of the Federal Reserve with combating possible recession contributed to dollar weakness. Subsequently, from March 1988 through June 1989, U.S. monetary policy was progressively and substantially tightened in response to concerns about rising inflation. This monetary tightening was surely an important cause of dollar appreciation during this period, despite the wishes of the G-7 finance ministers to avoid much of this appreciation.

The Influence of Fiscal Policy

In addition to monetary policy, U.S. fiscal policy is also often cited as a key determinant of major swings in the foreign exchange value of the dollar. The standard analysis, as described by Jeffrey Frankel, is that the expansionary fiscal policy of the first Reagan administration helped push up U.S. real interest rates (relative to foreign real interest rates) and through that mechanism contributed substantially to the real appreciation of the dollar from 1980 through 1984. By making U.S. goods relatively more expensive in comparison with foreign goods, the real appreciation of the dollar was, in turn, the proximate cause of the massive deterioration of the U.S. current account balance. Symmetrically, the increased demand for capital implied by the fiscal deficit and reflected in high U.S. interest rates induced a massive inflow of foreign capital that was the financial counterpart of the current account deficit.

On these issues, I would argue that the emphasis on the interest rate mechanism as the channel through which fiscal policy influenced the exchange rate and the current account has been somewhat overdone. In the circumstances of the early 1980s, the Reagan tax cuts and defense buildup probably did put some upward pressure on U.S. interest rates. However, the empirical evidence that fiscal policy has consistent and powerful effects on interest rates is not compelling. Moreover, there are other channels through which expansionary fiscal policy might have affected the real exchange rate and the current account.

During the first six quarters of economic recovery, from the end of 1982 through the middle of 1984, real domestic demand in the U.S. economy rose at a phenomenal 9 percent average annual rate. The usual Keynesian effects of expansionary fiscal policy are part of the explanation of this growth of domestic demand. So too are the supply-side, incentive effects of substantial reductions in tax rates on business investment and (perhaps) also the favorable incentives of lower individual taxes on labor effort. In addition, the restoration of consumer confidence and the gain in household wealth occasioned by rising stock and bond prices provided a powerful stimulus to consumption spending.

During the same period, real domestic demand rose very sluggishly in other industrial countries and was generally falling in developing countries affected by the debt crisis. On the basis of a very simple economic theory, without complications involving interest rates, the pattern of the growth of domestic demand around the world should have had important effects on the real foreign exchange value of the dollar. The price of U.S. output, for which demand was growing rapidly, should have risen relative to the price of the outputs of nations where domestic demand was growing slowly. In addition, as emphasized by many "supply-side" economists, the increased attractiveness of owning U.S. capital (partly resulting from the Reagan tax cuts) may have stimulated a flow of foreign investment, which tended to appreciate the dollar. Also, concerns about economic and military security in Western Europe during the early 1980s may have contributed a "safe-haven effect" to dollar appreciation.

After the middle of 1984, the rate of growth of real domestic demand slackened in the United States and began to pick up in other industrial countries. From late 1986 through the end of the decade, the growth of real domestic demand in the United States often fell below that of other industrial countries. Again, a simple theory suggests that these developments should have implied a weakening in the real foreign exchange value of the dollar.

For the current account, there is also a simple story. When real domestic demand dropped sharply during the recession of 1981–82, part of that decline fell on imports of foreign goods, and the U.S. current account improved. When U.S. real domestic demand expanded very rapidly during the initial stages of recovery, part of that expansion fell on increased imports of foreign goods, and the U.S. current account deteriorated. This deterioration was accentuated both by the slow growth of demand in other countries, which retarded the growth of U.S. exports, and by the real appreciation of the dollar, which shifted a larger fraction of world demand growth toward foreign goods and away from U.S. goods. In the mid-1980s, deterioration of the U.S. current account continued because of the lagged effects of the strong dollar.

In late 1987, for a variety of reasons, the U.S. current account began to improve. Most important, the effects of the huge real dollar depreciation since early 1985 started to take hold, stimulating rapid growth of U.S. exports and retarding growth of U.S. imports. At the same time, moderating growth of consumer spending and reduction of the U.S. fiscal deficit significantly diminished growth of real domestic demand in the United States. In other industrial countries, strong gains in real incomes and some stimulative fiscal policy actions were simultaneously generating stronger growth of real demand. The combined effect of all these forces was a 60 percent increase in U.S. real exports (in the GNP accounts) over the four years beginning with the fourth quarter of 1986 and a more than one-third reduction of the nominal U.S. current account deficit by 1990 from its peak in 1987.

Of course, movements in U.S. interest rates were not totally unrelated to movements in the dollar, in the U.S. current account, in U.S. monetary policy, or in U.S. fiscal policy. The point is that the interest rate mechanism is not the only plausible channel through which U.S. fiscal policy might have exerted some influence on the evolution of the dollar and the current account. For economic policy, the bottom-line issue is whether large and persistent fiscal deficits tended to contribute to the large U.S. current account deficit or, equivalently, whether actions to reduce the fiscal deficit might contribute to reductions in the current account deficit. On this issue, broad agreement was ultimately reached within the administration, despite skepticism about the interest rate effects of fiscal policy. The proviso, of course, was that deficit reduction be achieved through economic growth and spending restraint rather than through tax increases.

Virtues of Exchange Rate Adjustments and Payments Imbalances

Many discussions of U.S. economic policy lament the wide swings of the dollar exchange rate and the deterioration of the U.S. current account as critical problems of the 1980s. Clearly, many individuals and enterprises did suffer significant hardships from the intense pressure of foreign competition. Nevertheless, it is important to recognize that, from a broad macroeconomic perspective, much of the movement in the foreign exchange value of the dollar and in the U.S. current account during the 1980s was a necessary and often desirable concomitant of generally favorable economic developments.

Benefits from the Dollar's Upswing

At the beginning of the 1980s, U.S. economic policy fought a necessary and successful battle against the evils of persistently rising inflation. After a deep recession that was the inevitable consequence of this struggle, the U.S. economy enjoyed nearly eight years of relatively vigorous economic expansion during which the annual inflation rate generally remained close to 4 percent. Growth of productivity and of real per capita GNP was not as strong as during the period of exceptional economic progress in the 1950s and 1960s. However, taking account of the need to combat inflation inherited from the 1970s and of the success of that effort, the overall record of U.S. macroeconomic performance during the 1980s was a significant improvement over recent years.

Concerning specifically the upswing of the dollar during the early 1980s, there should be no doubt that the successful assault on inflation during 1981–82 was a key reason for substantial real dollar appreciation. Only a failure to confront this critical problem effectively would have kept the dollar at the depressed level to which it had fallen in the late 1970s.

As previously discussed, further real appreciation of the dollar during 1983 and early 1984 was partly due to the same economic forces that generated the very strong initial recovery of the U.S. economy from the recession of 1981–82, especially as reflected in the phenomenally rapid growth of real domestic demand. Moreover, dollar appreciation during this period clearly helped diminish inflationary pressures in the United States, both directly, by reducing import prices, and indirectly, by putting pressure on producers of internationally tradable goods to control costs and keep their prices from rising.

Dollar appreciation during 1983 and early 1984 also helped spread the impetus of strong demand growth in the United States to other countries where economic recovery would otherwise have been anemic or virtually nonexistent. Deterioration of the U.S. current account was the manifestation of this desirable leakage of demand growth from the United States to other countries, especially to developing countries that were struggling to improve their own current accounts.

On the other hand, given the usual lag in the impact of exchange rate changes on trade flows, the final year of dollar appreciation was probably not

reflected in the U.S. current account until 1986. By this time, further deterioration of the U.S. current account was not particularly a blessing for the United States or the rest of the world. Nevertheless, dollar appreciation during the spring and summer of 1984 did help restrain inflationary pressures in the United States and was partly attributable to a timely action to retighten U.S. monetary policy to provide reassurance of the Federal Reserve's resistance to any resurgence of inflation. Thus, only for the last three or four months of dollar appreciation, in late 1984 and early 1985, is it possible to find neither a plausible economic rationale or a meaningful macroeconomic benefit.

Avoidance of the Hard Landing

In the mid-1980s, many economic commentators expressed concern about the dangers of a "hard landing"—a sharp drop in the dollar that would frighten foreign investors and cut off the flow of foreign capital essential to finance much of U.S. net investment. For the United States, the predicted result was both high inflation (due to rising import prices) and deep recession (resulting from higher interest rates and the collapse of investment). For other countries, the prospect was recession resulting from a sharp decline in U.S. demand for their exports.

In the event, there was no hard landing. Although the dollar did drop precipitously from early 1985 until early 1987, there was no marked acceleration of inflation in the United States, no sharp cutback in the inflow of foreign capital, no sudden upsurge in interest rates, and no U.S. recession. Indeed, the stimulus to U.S. export growth and to investment by export-oriented industries contributed substantially to economic growth beginning in late 1986 and helped forestall a possible recession in the aftermath of the stock market crash of October 1987. In Japan, there was a brief pause in growth as export industries felt the impact of a sharply stronger yen, but there was no general economic downturn among countries whose currencies appreciated strongly against the dollar. Thus, all things considered, not only did the world economy adjust remarkably smoothly to the large decline of the dollar in the mid-1980s, but the effects of this exchange rate adjustment probably also contributed to a more satisfactory macroeconomic performance during the second half of the decade.

Of course, it cannot reasonably be argued that all of the wide swing in the foreign exchange value of the dollar or in the U.S. current account during the 1980s was necessary and desirable, even leaving aside the bizarre appreciation of late 1984 and early 1985. In the early 1980s, a less tight U.S. monetary policy and a less easy fiscal policy might have avoided some of the enormous appreciation of the dollar, without sacrificing much progress in reducing inflation or in speeding economic recovery. Later in the decade, a more vigorous attack on the U.S. fiscal deficit and a more even course of U.S. monetary policy (less easing in 1985–86 and less tightening in 1988–89) might have achieved superior results for growth and inflation while also smoothing the course for the dollar and generating larger reductions in the U.S. current account deficit.

In other leading countries, monetary and fiscal policies supporting somewhat stronger growth of domestic demand early in the decade might also have limited the extent of dollar appreciation and the need for subsequent correction, without exacerbating domestic inflation or impairing economic growth. Nevertheless, while improvements in economic policies both at home and abroad might have produced a somewhat smoother course for the dollar, there is little doubt that substantial swings in the foreign exchange value of the dollar and in the U.S. current account played an essential and desirable role in achieving the relatively favorable macroeconomic performance of the 1980s.

The Limited Role of Exchange Rate Policy

Monetary policy and fiscal policy are the primary tools through which the U.S. government may affect the foreign exchange value of the dollar and the current account balance. The issues of exchange rate policy, therefore, are primarily questions of the degree to which the behavior of the exchange rate or the current account should influence monetary and fiscal policy. In addition, there is the question of the extent to which the U.S. government can conduct an exchange rate policy that is separate from its monetary and fiscal policy.

The Exchange Rate as a Concern of Monetary Policy

During the 1980s, concerns about the exchange rate and the current account rarely exerted significant influence on the Federal Reserve's conduct of U.S. monetary policy. The record of the meetings of the Federal Open Market Committee (FOMC) indicates that, except for a few occasions in 1985, 1986, and 1987, relatively little attention was paid to international economic developments in decisions about monetary policy. A detailed analysis of the Federal Reserve's actions reveals that concerns about inflation and about output and employment growth were almost always the critical determinants of U.S. monetary policy. Moreover, as Jeffrey Frankel points out, in the formulation of both the Plaza Agreement and the Louvre Accord (the two most important policy actions explicitly directed at affecting the value of the dollar), no explicit consideration was given to monetary policy.

With regard to the appropriate influence of the exchange rate on U.S. monetary policy, it would seem peculiar—even outrageous—to argue that the Federal Reserve should have avoided or aborted its determined effort to combat inflation in 1981–82 because of concern about possibly excessive appreciation of the dollar. Similarly, few would argue that the Federal Reserve should have risked reigniting rapid inflation by running a highly expansionary monetary policy throughout 1984 in order to induce dollar depreciation.

Perhaps most revealing is the episode of monetary tightening from early 1988 to mid-1989. Initially, this U.S. monetary tightening helped firm the dollar in a manner consistent with the preferences of exchange rate policy, as expressed by the G-7 finance ministers. By late 1988, however, it was feared that

further dollar appreciation might impede progress in reducing international payments imbalances. While finance ministries, including the U.S. Treasury, ordered intervention to combat the rise of the dollar, U.S. monetary policy remained targeted to resisting inflation. The dollar continued to appreciate.

The issue posed by this episode is whether U.S. monetary policy should have given much greater emphasis to the exchange rate in late 1988 and the first half of 1989. For those who believe that the inflationary danger was exaggerated and that monetary policy was too tight for purely domestic economic purposes, this is not a challenging question. However, granting that the danger of rising inflation was real, can it persuasively be argued that monetary policy should have ignored this danger in favor of stabilizing the exchange rate? The bitter experience of the late 1970s and early 1980s demonstrated the costs of allowing inflation to build momentum before taking effective action. Would the late 1980s have begun a repeat of this sad experience had the Federal Reserve ignored the inflationary danger and focused more attention on stabilizing the dollar?

International Influences on U.S. Fiscal Policy

For U.S. fiscal policy, there is no question that concerns about the exchange rate or the current account have rarely, if ever, been determining factors. During President Reagan's first term, the administration's fiscal policy was dominated by the supply-side tax cuts, by cuts in domestic spending programs, and by the defense buildup—all of which were key policy priorities. Strong dollar appreciation was not an officially anticipated result of this fiscal policy but was welcomed as a sign of the administration's overall success. Some officials, notably Council of Economic Advisers (CEA) Chairman Martin Feldstein, expressed skepticism. However, in the political environment of Ronald Reagan's reelection campaign, there could be no room for doubt about the virtues of a strong dollar, whatever its cause and whatever future difficulties it might portend.

In President Reagan's second term, the initial priority for fiscal policy was not deficit reduction but tax reform. However, by early 1985, the rising U.S. current account deficit and increasing protectionist sentiment did become serious concerns of administration policymakers. The response was to seek dollar depreciation and stronger growth of foreign demand for U.S. exports rather than to mount a determined assault on the federal deficit. Even under the pressure of the Gramm-Rudman-Hollings (GRH) deficit reduction targets, there was little effective action to reduce the federal deficit until late 1986. The president supported domestic spending restraint but would not agree to tax increases or military spending cuts. The Congress talked about deficit reduction and criticized the president's budget but exhibited little willingness to cut any spending programs or propose any specific tax increases. In the political debate over the budget, there was vague recognition that the fiscal deficit might be related to the current account deficit. However, this relation was not sufficiently

compelling, and concern over the current account was not sufficiently great, to stimulate much action to reduce the fiscal deficit.

In fiscal year 1987, the federal deficit fell to 3 percent of GNP, from 5 percent in the preceding fiscal year. This accomplishment partly reflected political pressures to do something to meet the GRH deficit targets in the congressional session that ended just before the 1986 midterm elections. In part, it was the accidental consequence of the revenue bulge from the onset of tax reform and from the exceptionally and unexpectedly strong performance of the U.S. economy. The budget agreement pounded out after the stock market crash achieved enough to lock in the accidental gains of fiscal 1987 and hold the budget deficit to 3 percent of GNP for the remainder of the decade.

From the perspective of international economic policy, the key fact about the deficit reduction accomplished during the final three years of the 1980s is that it was no more than marginally affected by concerns about the exchange rate and the current account. For years, foreign government officials had been berating U.S. officials, including President Reagan, about the need to cut the U.S. fiscal deficit. When significant deficit reduction was achieved, U.S. officials were happy to take credit for their contribution to "international economic policy coordination" (while foreign officials expressed skepticism about the size and permanence of the accomplishment). Nevertheless, viewing the process as a member of the Council of Economic Advisers, I have no doubt that domestic political and economic concerns, rather than efforts at international policy coordination, were the driving force behind any accomplishments in the area of fiscal deficit reduction.

In the future, of course, it is possible that international economic concerns may weigh more heavily in the conduct of U.S. fiscal policy. However, long experience before, during, and after the 1980s suggests that such concerns will rarely exert much influence on U.S. fiscal policy. The powerful interests at play in any significant issue of fiscal policy and the division of power and the nature of the policy-making process dictate that vague concerns about the exchange rate and the current account will be given little weight in politically determined outcomes. The notion that U.S. fiscal policy will be actively manipulated to affect the exchange rate or the balance of payments is an economist's dream—or nightmare. It is not a practical issue of economic policy.

Official Intervention and Exchange Rate Policy

Finally, there is the question of exchange rate policy that is separate from monetary and fiscal policy. Such policy consists of sterilized official intervention in foreign exchange markets and public statements (and background rumors) of high government officials directed toward altering the behavior of exchange rates. In the first Reagan administration, there was no such policy—or, as Jeffrey Frankel describes it, there was Treasury Undersecretary for Monetary Affairs Beryl Sprinkel's policy of benign neglect. In the second Reagan administration, Treasury Secretary James Baker, Deputy Secretary Richard

Darman, Undersecretary David Mulford, and (later) Nicholas Brady pursued more active and publicly visible policy to influence the exchange rate.

In my view, the early policy of "benign neglect" was 80 or 90 percent correct, and the subsequent policy was more of a political and public relations success than a substantive accomplishment. As previously discussed, much of the appreciation of the dollar during the early 1980s was the inevitable and, to a substantial extent, desirable consequence of the macroeconomic events and policies of that period. Exchange rate policy that did not alter monetary or fiscal policy could not have done much to avoid most of the appreciation of the dollar, and it would probably have been a mistake to try.

The important exception (and one of the few issues on which I have a significant disagreement with Beryl Sprinkel) is the last 10 or 15 percent of dollar appreciation in late 1984 and early 1985. Given the enormous run-up of the dollar by the summer of 1984, there was no plausible economic rationale for further appreciation. In retrospect, and even at the time, it seems clear that avoiding the final lunge of appreciation would have been worthwhile. An official statement that too much dollar appreciation was undesirable—backed by substantial, coordinated intervention against the dollar—might have turned the tide. If ever there was an occasion for using exchange rate policy to correct a fundamental disequilibrium, this was such an occasion. Surely, there was little harm in trying.

The occasional usefulness of exchange rate policy was illustrated in February 1985, when the dollar finally began its long downward correction. At this time, there was publicly reported intervention against the dollar by leading central banks, including (for the first time since 1981) the Federal Reserve. In the Plaza Agreement of 22 September 1985, the finance ministers of the G-5 countries publicly declared that "some further orderly appreciation of non-dollar currencies is desirable," and this declaration was subsequently backed by coordinated intervention.

It is difficult to know how much these efforts at exchange rate policy contributed to the dollar's actual decline during 1985. The easing of U.S. monetary policy, together with the implications of large and growing U.S. current account deficits, was surely an important fundamental force for a lower dollar. Moreover, as Martin Feldstein and others have emphasized, the dollar headed downward throughout most of 1985, even when there were no official announcements or intervention pushing in that direction. On the other hand, there were large drops in the dollar simultaneously with major interventions and immediately after the announcement of the Plaza Agreement. On balance, the lesson from this experience appears to be that exchange rate policy can enjoy success when it is reinforcing rather than resisting the basic trend in the market and when it is supported by, or at least consistent with, more fundamental economic forces.

The limits on the effectiveness of exchange rate policy are powerfully illustrated by events later in the decade. By the spring of 1986, although the U.S.

Treasury remained favorably disposed toward further dollar depreciation, the Japanese and German governments began to intervene against what they perceived as excessive appreciation of their currencies. Despite quite a large intervention, the yen and the deutsche mark continued to appreciate. In the Louvre Accord of February 1987, the G-7 finance ministers proclaimed that the dollar had depreciated sufficiently and that further depreciation would be resisted. Within weeks, market pressures forced an upward rebasing of the implicit target range for the yen. Late in 1987, in the aftermath of the stock market crash, the dollar began to move sharply downward, despite substantial intervention by foreign central banks, but with the perception that U.S. authorities were not unhappy with further dollar depreciation. During 1988–89, the progressive tightening of U.S. monetary policy overwhelmed the internationally coordinated, publicly announced efforts to resist dollar appreciation through the limited tools of exchange rate policy.

It is not surprising that exchange rate policy, unsupported by more fundamental forces, often exhibited little influence on the value of the dollar. Even if portfolio-balance models of exchange rate determination (referred to by Jeffrey Frankel) are correct, it would presumably take hundreds of billions of dollars of sterilized intervention to affect significantly the foreign exchange value of the dollar by altering the relative supplies of assets denominated in different national currencies. When more modest official intervention succeeds in influencing exchange rates—as it sometimes does—it is because intervention signals something about official intentions concerning more fundamental policies that markets are more prepared to believe rather than to contradict.

Finally, some of the dangers of an excessively active exchange rate policy should be noted. Large-scale official intervention can become expensive to the taxpayer if the authorities consistently fail to outguess the market. In practice, however, losses from official intervention are usually not large, except when authorities persist in futile attempts to defend an unsustainable exchange rate. Perhaps of greater concern is the possibility that excessive and unsuccessful use of exchange rate policy will diminish its effectiveness on those few occasions when it can be helpful. The signaling effect of official intervention ought to depend on the quality of the signal, and a record of misguided intervention presumably impairs signal quality. Probably of greatest concern is the risk that exchange rate policy may pervert the conduct of other, more important policies, especially monetary policy. For example, it has been suggested that the recent increase of inflation in the United Kingdom has been the consequence of rapid money creation resulting from efforts to stabilize the sterling/deutsche mark exchange rate during the late 1980s. In the United States, where monetary policy is institutionally separated and insulated from exchange rate policy, this danger may not be acute. However, in the political environment where government officials occasionally become attached to the success of their pet policies, this danger should not be entirely ignored.

Summary of Discussion

Paul Volcker began the discussion by stating some of his views on exchange rate policy. First, he expressed his agreement with Mussa on the topic of sterilized intervention—there is not much cost to it, and it is sometimes helpful as a signaling device. So he thought that sterilized intervention should not be abandoned as a policy tool, but he would not expect too much from it. He disagreed entirely with the description in Frankel's paper of the Federal Reserve's legal authority for exchange market intervention. Although the Treasury Department may apply pressure on the Fed to intervene in certain ways (or more likely *not* to intervene), the Fed is clearly entitled legally to intervene (or not to intervene) on its own. It boils down to the practical need for coordination and the Treasury's general claim to executive leadership in international economic policy.

Next, Volcker said that he instinctively likes a strong dollar. He thought that the dollar had been too strong during the period 1983–85, but he gets nervous when people are too relaxed about the dollar depreciating. Also, he thought that it would have been dangerous and ineffective to try to manipulate the value of the dollar by monetary policy, in the absence of the president and Congress making the changes that we have seen as necessary in fiscal policy.

Finally, Volcker said that the United States should be trying to achieve more stable exchange rates and that monetary policy would need to play a role in that.

Martin Feldstein asked whether the policymakers who met at the Louvre and the Plaza had distinguished between sterilized and unsterilized intervention. *Volcker* responded that people assumed that the intervention would be sterilized, although there was no explicit discussion of this point.

Feldstein then asked why the policymakers had pursued a course of action that the Jurgensen Report had declared to be useless. Did the policymakers think that sterilized intervention might work in some instances? Did they intend the policy to be a signal of something and, if so, of what?

Volcker said that, although the tone of the Jurgensen Report had been extremely skeptical, it had not said that sterilized intervention was ineffective under all circumstances. He added that he had indicated to the Treasury Department prior to the Plaza Agreement that monetary policy was unlikely to be tightened soon, which would have defeated the effort to depreciate the dollar. *Feldstein* supposed that the sterilized intervention had thus sent a signal that the Fed was not going to tighten monetary policy soon.

It seemed peculiar to *William Poole* that many people want to continue to use sterilized intervention, even though they seem to agree that it is not very effective. He thought that the danger of retaining sterilized intervention as a policy instrument is that it would be used in circumstances where it is inappropriate and potentially harmful. Poole drew an analogy to credit controls; he

thought that the economy would have been better off if the Federal Reserve had not had the authority to impose credit controls in 1980, even though there are, conceivably, some circumstances under which such controls might be useful. Poole doubted that the marginal signaling value of exchange market intervention was worth the possible misuse of the tool.

Volcker replied that he thought that exchange rate intervention could be quite effective as a signaling device *if* it is believed that more fundamental policies will be changed if needed to back up that signal. In this case, one might avoid the need, for instance, of a change in fiscal or monetary policy that might cut across the grain of other objectives as long as markets are confident that the government would be willing to do it if required in the end to back up the stability of the currency. What is involved is expectations. Nevertheless, he agreed with Poole that intervention can be abused, and he said that the chairman of the Federal Reserve Board should take care to use it constructively.

Fred Bergsten asked whether fundamental macroeconomic policy in the United States would have been different at the time of the Plaza agreement had exchange rate intervention been ruled out. Would fiscal policy have been tightened, for example?

Feldstein answered that he thought that macroeconomic policy would not have been any different. *Volcker* agreed, saying that, although Treasury Secretary James Baker probably acknowledged that there was a connection between the budget deficit and the trade deficit, he was unwilling to bear the political costs that he thought would be incurred by proposing any change in fiscal policy.

Bergsten said that, if Feldstein and Volcker were correct that fiscal policy would not have changed under any circumstances, then it was good to use exchange rate intervention at least to try to lower the value of the dollar.

Poole responded that it is not clear that the Plaza Agreement had much effect on the value of the dollar anyway. The dollar had depreciated a lot before the Plaza Agreement, and, although it continued to decline steadily, its decline was actually slowed by the actions of foreign central banks. Official capital flowed into the United States after the agreement because the Japanese, German, and British central banks were trying, Poole thought, to prevent their own currencies from appreciating too rapidly.

Feldstein agreed, noting that, if one studies the movement of the exchange rate over this period, there is no significant change at the time of the Plaza Agreement.

Jeffrey Frankel said that he disagreed with Poole and Feldstein that one cannot see the effects of sterilized intervention by looking at exchange rate patterns in 1985. Frankel argued that, although people generally date the intervention from the time of the Plaza meeting, it actually began in January or February 1985 after the G-5 meeting in London. At both meetings, the participants agreed to roughly $10 billion worth of intervention, although a greater

fraction of that intervention was undertaken by the United States after the Plaza meeting.

Frankel added that he and economist Kathryn Dominguez had studied the sterilized intervention by the German Bundesbank and the Federal Reserve for 1985–88, and they had found a statistically significant effect on the value of the dollar. The estimated effect was very small, however, except when the intervention was publicly announced. Thus, one might say that sterilized intervention is effective because it is signaling future monetary policy, but Frankel did not know if this was the correct conclusion to draw.

Frankel concluded that he had been quite skeptical in the early 1980s that sterilized intervention could be effective, but, when the dollar had become so strong by late 1984, he had begun to think that it was a good time to try it. He thought now that a good case can be made that the intervention pricked the speculative exchange rate bubble, starting at the beginning of 1985.

Geoffrey Carliner wondered why it was necessary to use sterilized intervention as a signal that the U.S. government wanted the dollar to depreciate when Volcker and Baker could simply have stated their desire for this to happen.

Volcker said that Baker wanted to use this issue as a negotiating tool, by threatening other countries that, unless they took action to strengthen their currencies, the United States would take action to depreciate the dollar.

Feldstein pointed out that, had Baker wanted only to threaten other countries, he could have contacted his counterparts in Bonn and Tokyo and delivered the message privately. Feldstein thought that, by making a public announcement, Baker had placed himself in a no-lose position in the United States. If the dollar did not fall, that would have been because foreigners had taken the policy steps that the United States desired. If the dollar did fall, that would have shown how powerful Baker was. Essentially, Baker had been able to convince the U.S. public that a falling dollar would be a virtue and a sign of U.S. strength.

Bergsten said that the policy became much riskier for Baker as U.S. interest rates started to increase in early 1987. To continue the depreciation of the dollar, Baker needed to persuade Volcker to combat the rising interest rates with expansionary monetary policy. Yet Volcker did not seem to accede to Baker's requests, and Bergsten asked Volcker if this had been a problem.

Volcker responded that there really had not been much of a conflict. The Federal Reserve had not tightened monetary policy to a point that was disturbing to Baker, and it was not clear that even tighter policy would have prompted Baker to publicize their differences.

Bergsten believed that Baker had been more committed to expansionary monetary policy and further depreciation of the dollar than Volcker admitted. The trade deficit was still increasing, and many in Congress continued to call for protectionist measures. Further, the Treasury wanted the dollar to continue falling so as to apply additional pressure on the Germans and Japanese to expand their own economies.

Michael Mussa returned to Poole's point about the dangers of exchange market intervention. He thought that the danger was that a country would try to defend a particular exchange rate that was really indefensible. This would cost the taxpayers large amounts of money, and, in an effort to save both money and prestige, the government might change fundamental economic policy in a way that could be detrimental to more important policy objectives.

Feldstein asked whether there was any evidence that this had happened in the 1980s. In particular, he wondered whether the Federal Reserve had kept interest rates higher in 1987 than they would otherwise have been, in order to defend the value of the dollar under the Louvre Agreement.

Mussa replied that the record of the Federal Open Market Committee indicated that the Federal Reserve had in fact been concerned with the exchange rate at that time. It was not clear, however, whether they were concerned because of the exchange rate itself or because of the inflationary implications of further depreciation. Mussa thought that there was really no way to separate these issues.

Mussa added that Federal Reserve Governor Manuel Johnson had dissented from a later Fed decision regarding intervention, arguing that the Fed should not support the Treasury's decision to intervene. Johnson expressed concern that the Treasury was trying to resist a clearly rising trend of the dollar, rather than intervening as a signal or to smooth market developments. This was another instance in which one might argue that exchange market intervention was inappropriate.

Thomas Enders said that he thought that the Federal Reserve had not been entirely responsible for the rise in interest rates in 1987. In fact, the yield curve tilted upward, in addition to shifting upward, which is hard to attribute to tighter monetary policy. The real cause of the rise in interest rates was probably an increasing lack of long-term foreign capital.

Mussa agreed and pointed out that, while the Germans and Japanese had been lowering interest rates in the spring of 1987, by the summer they were raising them. The Federal Reserve must have felt that, if it did not allow U.S. interest rates to rise along with foreign interest rates, it would have faced a significant depreciation of the dollar.

William Niskanen offered two comments about sterilized intervention. First, he argued that there is no evidence that the Federal Reserve had subordinated its concern about stabilizing domestic demand to any concern about the exchange rate during the entire period 1984–88. In particular, although the Fed may have accommodated policy to exchange rate concerns for very brief periods of time, it did not do so over any period as long as three months. Second, Niskanen did not know of any argument that suggested that the Fed's single policy tool should be directed toward stabilizing exchange rates rather than stabilizing nominal domestic demand. The Federal Reserve cannot stabilize both, so it must pick one, and Niskanen did not see any reason why the Fed should focus on exchange rates. It seemed clear that directing monetary policy

toward domestic economic goals had been the right thing for the Federal Reserve to do.

Niskanen added that he thought that the primary objective of the Plaza and Louvre agreements had been to place constraints on the Fed's behavior. Then Baker had timed his speeches about the dollar so that it had looked as though he had a lot of influence over the Federal Reserve. In fact, Federal Reserve policy had not been affected by either the international agreements or Baker's speeches.

Bergsten responded that Niskanen's argument goes back to the basic question of whether the Plaza Agreement had any effect on the dollar exchange rate. It was clear that there were differences among the conference participants on this subject. Frankel argued that intervention can make a difference, and Bergsten supported this view. He believed that sterilized intervention can affect the exchange rate by influencing market psychology and expectations and by signaling future policy. He said that, if one could use rational economic analysis to explain the rapid appreciation of the dollar in late 1984 and early 1985, then one could say that the decline was purely rational as well. But, in fact, there was no rational economic theory that explained the final 20 percent of the dollar's rise, so one cannot dismiss the idea that the Plaza Agreement was effective through psychological channels.

Mussa maintained that the basic path of the foreign exchange value of the dollar is determined by fundamental monetary and fiscal policy and that exchange rate policy, meaning sterilized intervention, has little influence on it. But he thought that it was plausible that exchange rate policy could have some small effect, as Frankel and Bergsten were arguing.

Feldstein claimed that 1987 had been very different from earlier periods because the exchange market intervention had been accompanied by changes in U.S. monetary policy and by massive purchases of dollar securities by the Japanese. Both the monetary policy changes and the asset purchases showed the markets that the countries were prepared to sacrifice their domestic monetary policy goals in order to reach their exchange rate goals. This willingness to change fundamental policies on the basis of exchange rate considerations had greatly increased the power of the sterilized intervention signal. So Feldstein concluded that intervention had mattered during this period, although not for the standard reasons.

Returning to an earlier comment, Feldstein asked Mussa to explain the mechanism by which a budget deficit can produce a current account deficit without affecting either interest rates or the dollar.

Mussa responded that interest rates probably did rise in response to the expansionary fiscal policy but that the budget deficit was not the primary force affecting those rates. He said that it is very difficult to find correlations between the budget deficit, interest rates, and the dollar. Mussa added that the existence of a budget deficit may mean that domestic spending exceeds income, which directly produces a current account deficit. If the economy has

nontraded goods, then the real exchange rate reacts to the current account deficit, without requiring any link to interest rates.

Bergsten returned to the issue of whether sterilized intervention was costly for taxpayers. He argued that, in fact, the United States had made money over time through various interventions. When the Carter administration had intervened, for example, it had made over $1 billion.

David Richardson remarked that short-term expediency can sometimes lead to bad long-term policies. He emphasized the point in Frankel's paper that the temporarily large trade deficits in the early 1980s had resulted in a 1988 trade bill that may do long-term damage to U.S. trade policy.