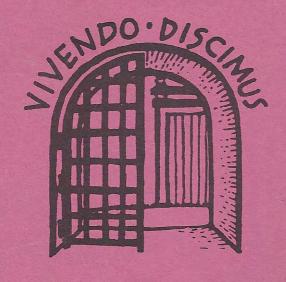
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WHAT TO DO ABOUT THE OVER-VALUED DOLLAR

RONALD McKINNON

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RONALD McKINNON

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The paper represents Professor McKinnon's invited testimony to the US Congress on this matter of international importance. The David Hume Institute is grateful to Professor McKinnon for giving it exclusive rights of first publication.

WHAT TO DO ABOUT THE OVERVALUED DOLLAR*

by

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Reneging on the long-standing American commitment to maintain free international trade would undermine the economic basis for the postwar prosperity of the noncommunist world. Yet, the grossly overvalued dollar — as much as 30 to 40 percent when measured against European currencies and about 20 percent against the Japanese yen — is imposing undue competitive pressure and great distress across a broad spectrum of American farming, mining and manufacturing activities. And pressure to restrict imports is rapidly increasing.

However, a return to protectionism is no solution at all. Restricting imports entering the United States would drive the dollar up further, causing even more misfortune for American exporters.

But to thwart protectionsim, the financial imbalance between the United States and the Industrial countries of Western Europe and Japan must be righted. The large U.S. fiscal deficit is commonly (and correctly) blamed for much of the trade deficit—but it cannot explain the present extraordinary exchange-rate misalignment. I hypothesize that monetary coordination among the United States, the European bloc, and Japan is the only practical way of correcting dollar overvaluation while at the same time preserving longer-run price and exchange-rate stability.

^{*}Much of the empirical and theoretical support for the proposals advanced in this paper can be found in the author's recent book, An International Standard For Monetary Stabilization, the Institute for International Economics, (Washington D.C.) and the M.I.T. Press, 1984. Some of these materials are included in the supporting tables and figures, all of which appear at the end of the paper rather than being inserted into the text.

THE FISCAL CONUNDRUM

An obvious target for reform is American fiscal policy. Huge budget deficits, which the Federal Reserve properly refuses to monetize—increase American real interest rates (those calculated after expected future price inflation is discounted) and attract capital from abroad. The dollar is then bid up in the foreign exchange markets—overshooting its long-run equilibrium—as foreigners rush to take advantage of the high yields on U.S. government bonds and corporate securities. Apart from exchange-rate overshooting, however, the trade deficit simply cannot be eliminated while the fiscal deficit remains so large and raises the country's expenditures above its income.

But fiscal policy is not the whole story. After all, the large dollar depreciations of the 1970s were not caused by U.S. budgetary surpluses! Indeed, in the 1970s, some commentators at the time pointed to the much smaller U.S. fiscal deficits as one reason why foreigners felt nervous about holding on to dollar assets.

Moreover, much of the recent increase in the foreign exchange value of the dollar has been associated with **falling** nominal interest rates. From August 1984 to early February 1985, American interest rates fell 2 to 3 percentage points relative to those in Germany (see Figure 4), while the dollar was rising from 2.88 to 3.25 marks (Figure 2).

Although interest rates remain important, expectations of future political safety, price inflation, and other sources of future exchange rate movements often dominate the portfolio preferences of international investors. The gnomes of Zurich, Luxembourg, and Singapore continually look for the safest haven (currency) in which to place their internationally liquid assets.

Suppose the American government moved seriously towards cutting expenditures. U.S. interest rates would fall immediately in anticipation of lower future fiscal deficits, and this effect by itself would tend to depress the dollar in the foreign exchanges. Against this, people might expect that the resulting reduction in the projected national debt would lessen the chances of price inflation in the distant future. Similarly, other taxes on the holders of dollar assets become less likely. The United States could then seem like an even safer haven for international capital.

Because of these opposing considerations, even resolute action by the American government to eliminate its unsustainable fiscal deficit need not bring the dollar down in the foreign exchange markets — although it probably would. (The one dramatic exception is a general withholding tax on interest and dividend income — including all those American securities owned by foreigners. That certainly would bring the dollar down.) At best, fiscal policy is a blunt instrument, subject to long delays and uncertainties, for influencing the exchange rate.

ENTER MONETARY POLICY

In contrast, monetary policy is immediately flexible and can be made to influence the exchange rate unambiguously. From the 19th century gold standard to the fixed exchange rates of the 1950s and 1960s under the old Bretton Woods agreement, examples abound of countries successfully subordinating their monetary policies to maintaining a fixed exchange rate with some other stable money. Central banks can react quickly to international shifts in the demand for the money they issue.

In the asymmetrical Bretton Woods system, countries other than the United States were directly responsible for maintaining their exchange rates within one percent of either side of their formal dollar parities. For example, from 1950 to 1970, the Bank of Japan kept the yen within ¾ of one percent of 360 yen to the dollar by raising yen interest rates and contracting when international payments were in deficit, and expanding the yen money supply when the Japanese currency tended to appreciate. Japanese monetary policy, based on this fixed exchange-rate rule, led to stable yen prices for the broad range of internationally traded goods and contributed to Japan's extraordinary postwar recovery.

Similarly, in these same two prosperous decades, European governments generally subordinated their monetary policies to preserve stable exchange rates for long periods — with small, infrequent adjustments in their dollar parities. Only Britain continually resisted the necessary internationalization of its domestic monetary policy with consequential balance-of-payments deficits and numerous "sterling crises" throughout the 1950s and 1960s. And Britain had the least successful domestic growth and foreign trade performances of any Western European economy.

THE FLAW IN BRETTON WOODS

But the Bretton Woods system had an inherent weakness. The monetary policy of the centre country, the United States, was insufficiently guided by any exchange-rate or other international obligation of its own. Even the American commitment to a weak form of gold convertibility, itself inadequate, had eroded by the late 1960s.

Consequently, in 1970-73, the international system of fixed exchange rates broke down when the United States increased U.S. money growth despite the fact that the dollar was under obvious downward pressure in the foreign exchanges. Mistakenly, in 1971 President Nixon forced the other governments to let the dollar be devalued rather than contract the U.S. money supply. Private investors took this as a signal to reduce their holding of dollar assets in favour of foreign currencies — forcing further depreciations of the dollar in 1972-73, as shown in Figure 1.

The resulting great inflation in the dollar prices of goods and services in the 1970s (Table 2) was aggravated by another unwarranted depreciation of the dollar in 1977-79. Foreign governments became loathe to bend their monetary policies to reestablish fixed dollar parities with what they then saw to be a chronically depreciating international currency.

Responding firmly, albeit belatedly, to domestic price inflation, the U.S. Federal Reserve System tightened its monetary control procedures in October 1979. But international confidence in the dollar was not restored until the election of a more conservative President in late 1980. The remarkable shift in portfolio preferences back into dollar assets, and the great dollar appreciation of 1981-82, surprised everyone. In response to this clear signal from the foreign exchanges that U.S. monetary policy was now too tight, the Fed did not loosen up soon enought. The result was the sharp deflation and depression of 1982.

Although threatening to undermine the American free trade ethic, the overvaluation of the dollar in the early 1980s had one significant advantage. The international concern over chronic American inflation is now largely dissipated. Indeed, Germany, Japan, and the United States now have virtually the same low rate of price inflation (Table 2). Thus 1985 is a good time to negotiate a new agreement for stabilizing exchange rates — at a

much lower foreign exchange value for the dollar — while keeping international price inflation close to zero.

For any new exchange-rate agreement to be successful, however, the flaw in the old one must be corrected. In cooperation with other central banks, the U.S. Federal Reserve System must give exchange-rate stability more weight in the future conduct of American monetary policy. Speculative pressure is now too great for Japan or European countries to stabilize dollar exchange rates on their own; many have tried (and failed) to do so in recent years — particularly in the last few turbulent months.

A NEW MONETARY ORDER FOR THE 1980s

Assume now that in making American monetary policy, the Federal Reserve System abandons its traditional insular approach, which virtually ignores the foreign exchanges. By some miracle, suppose that the bank of Japan, the Bundesbank (representing the European bloc), and the Fed all agree to coordinate their monetary policies to achieve exchange stability.

How could such a system be efficiently managed to nudge the dollar down in the foreign exchanges without significant inflationary consequences? Once this transition is completed, how can fixed exchange rates and stable prices be maintained?

Announcement effects are as important as the fact of monetary cooperation itself. To harness the market's expectations in favour of the new exchange-rate regime, the three central banks must spell out what they intend to do in a consistent fashion. Only then will the required adjustments in national monetary policies turn out to be minimal.

So what should the triumvirate announce? The new monetary order would have four essential elements:

- Explicit target zones for the yen/dollar and mark/dollar exchange rates;
- (2) A commitment to adjust domestic monetary policies-symmetrically among the three countries to achieve these targets;
- (3) Rules for restrained, but decisive, direct interventions to correct "disorderly conditions" in the foreign exchanges;

(4) Joint management of aggregate money growth within the triumvirate in order to stabilize their common price level in the longer run.

Let us discuss each in turn.

TARGET ZONES FOR EXCHANGE RATES

Exchange-rate targets would be designed (and announced) to achieve a rough purchasing power parity among the three countries—taking their current stable price levels as benchmarks. Illustrative calculations suggest that about 2.2 marks and 210 yen to the dollar — far under today's market quotations — approximate what the triumvirate should strive for.

The important point is that these exchange-rate targets are designed to align national price levels and **not** to correct bilateral (or multilateral) trade deficits or surpluses. Even if the dollar were nudged down so that the American price level became better aligned with those of Germany and Japan, the large U.S. fiscal deficit would still leave a large U.S. trade deficit — albeit one that was somewhat smaller.

Because of the current substantial difference in interest rates between the United States and the other two countries, a broad 10 percent band should be established around these two central rates. To illustrate, the dollar could be targeted to stay within a range of 2.10 and 2.30 marks, and within 200 to 220 yen.

In view of the present extreme misalignment of the dollar, these target zones are necessarily "soft". That is, the participating central banks are not committed to achieving them immediately. In particular, any massive official intervention in the foreign exchanges to push rates in the desired direction would be ruled out.

Nevertheless, the targets are real enough. The gnomes would clearly understand the direction in which the central banks were pushing. In view of the misinformation and confusion that now prevails in the exchange markets, a clear official declaration of exchange-rate goals would allow private expectations to coalesce in support — provided that the accompanying program of monetary adjustment was credible.

MUTUAL MONETARY ADJUSTMENT

Among the three countries, monetary adjustments would take place symmetrically for as long as the relevant exchange rate was outside its target zone — whether that be weeks, months, or years. When the dollar exchange rate is above its target sone(s), the Fed should expand the money supply and reduce interest rates while the Bundesbank and Bank of Japan contract symmetrically. (And act conversely if the dollar were ever to fall below its target range.)

For example, suppose that the current mark/dollar exchange rate is 3.30, that the Fed's normal long-term annual growth rate for M1 is between 4 and 6 percent, and that the Bundesbank's normal growth in what it calls "central bank" money is also between 4 and 6 percent. Then the Fed would be publicly committed to increasing its money growth above 6 percent (possibly reducing interest rates), while the Bundesbank kept its money growth below 4 percent (possibly raising interest rates), until the mark/dollar rate fell below 2.3 marks and into its target zone.

To be successful in changing traders' expectations to push the mark/dollar exchange rate in the desired direction, this commitment to mutual monetary adjustment must be unambiguous. To avoid adverse expectations, other potentially conflicting rules need to be jettisoned.

The surprisingly sharp rise of the dollar from 3.2 to about 3.47 D.M. in February 1985 (Figure 2) was due at least in part to an apparent conflict in the U.S. Federal Reserve System's immediate monetary objectives. In November and again in December 1984, the Fed cut the discount rate and embarked on much faster money growth; it correctly noted that such expansion was warranted because (among other factors) the dollar at 3.0 marks was grossly overvalued even then. And for November, December and January, growth in U.S. M1 spurted to more than 11 percent measured on an annual basis — see Figure 3.

However, in January the Fed then published — as required by the U.S. Congress — its money growth targets for all of 1985. A normal 4 to 7 percent growth range for M1 during 1985 was announced. Unfortunately, this published money growth target now conflicted with the higher money growth actually taking place in early 1985. In February and March, actual M1 was far

above the cone of "permissible" levels officially published as shown in Figure 3.

The market came to expect that the Fed would have to contract to get M1 back on its "normal" path. In anticipation, U.S. interest rates rose sharply in February 1985 (Figure 4) and drove the dollar up further in the foreign exchanges. This surge into dollar assets assumed panic proportions when Fed Chairman Volcker, testifying before Congress on February 20, suggested that the Fed would end the progressively easier credit policy adopted in late 1984.

Clearly the Fed should have made clear that monetary ease would continue indefinitely, and that lower long-term growth in M1 would not be resumed until the dollar had fallen into its target zone.

The credibility of this unusual — if fleeting — attempt by the Fed to key on the exchange rate was further undermined by the absence of any agreement on how foreign central banks would react. Those countries with weak currencies — most particularly the European bloc — should have reduced their money growth below normal when the Fed undertook its unusual expansion in late 1984. Downward pressure on the dollar would then come from both sides.

If, instead, the German and Japanese central banks behaved perversely by expanding in tandem with the Fed, the private markets would have no assurance that the dollar would be successfully pushed down. Not knowing what the other central banks were going to do, private speculators were less likely to support the Fed's actions by anticipating dollar depreciation.

Clearly, monetary adjustments by one central bank are much more likely to succeed in influencing the exchange rate if the market knows that the other two are supporting it. Thus one can see the great value of a formal, well-publicized international agreement on the format for monetary coordination.

OFFICIALINTERVENTION IN THE FOREIGN EXCHANGES

The fact, or even the possibility, of direct official intervention in the foreign exchanges captures newspaper headlines. As the American government agonizes over what to do about the exchange rate, the immediate focus is on whether or not the Federal Reserve Bank of New York — in consultation with U.S.

Treasury and the Federal Reserve System — should intervene as a buyer or seller of foreign exchange.

On March 8, 1985, the Federal Reserve Bank of New York announced it had intervened to buy Deutsche marks seven times between August and January in relatively modest (for this huge market) amounts of one or two hundred million dollars in each case. The European and Japanese central banks were known to intervene more often, and more heavily, over the same period. As usual, the Fed refused to reveal the details of its more recent — and substantially heavier — interventions in February and early March 1985.

But this emphasis on direct intervention is misplaced, and so is some of the secrecy that veils the precise goals of these interventions.

With the integration of the American, European, and Japanese capital markets, gross stocks of private financial claims on — and liabilities to — foreigners tend to dwarf official exchange reserves. For example, by the end of 1983, private Japanese claims on foreigners were about ten times as high as official exchange reserves; and with the further Japanese financial liberalization in 1984, these gross private claims again increased. In financially open European economies like Germany and Britain, the ratios of gross private claims on foreigners to official exchange reserves are even greater than in the Japanese case.

The upshot is that exchange reserves are too small for direct government intervention to have a significant impact on the huge internationally mobile private holdings of stocks and bonds. Indeed, ample evidence in 1984-85 suggests that official attempts to intervene in the absence of monetary coordination, and without influencing the (adverse) expectations by private traders, did wash out for all practical purposes. For stabilizing the exchange rate, official intervention will be ineffective **unless** it is accompanied by a supporting monetary policy. And these mutual monetary adjustments — as described above — need not require direct interventions in the foreign exchanges.

That said, there remains a limited role for direct official intervention to correct disorderly conditions in exchange markets over a short period — say, one trading day.

Having posted target zones for exchange rates (according to our hypothetical monetary agreement), the triumvirate of central banks could treat as "disorderly" any substantial exchange-rate movement away from these official targets. For example, if the target is 2.1 to 2.3 DM/dollar, and the market rate suddenly moves from 3.2 to 3.3 or more (a not uncommon occurrence in February 1985), then the market is disorderly: the movement is both large and in the wrong direction.

Indeed, such a perverse movement indicates that private traders are not properly informed of official intentions — or that the official exchange-rate targets lack credibility. To reaffirm the central banks' objective of guiding exchange rates into their target zones, some stabilizing intervention is warranted.

To be both limited in magnitude and decisive in result, any such intervention should be reinforced by discrete monetary adjustments beyond previous measures. This is most easily accomplished by ensuring that interventions in the foreign exchanges are symmetrically unsterilized in their impact on each country's monetary base.

For example, to prevent the dollar from increasing further, suppose the Bundesbank — in consultation with the Fed — purchases 200 million dollars worth of marks in the open foreign exchange market. They could agree that the Bundesbank would retire half of those marks from circulation while the Fed contracted the American monetary base by 100 million dollars. Consequently, interest rates would likely rise in Germany and fall in the United States, thus helping to drive the dollar down.

This is powerful medicine. If the distribution of monetary base between the two countries is affected, even modest official exchange interventions have great leverage — as private traders will quickly realize.

NEED DOLLAR DEPRECIATION BE INFLATIONARY?

Suppose the dollar exchange rate is reduced from present stratospheric levels into the target zones suggested above. Is it possible to avoid reigniting the kind of rapid price inflation associated with the depreciating dollar of the unhappy 1970s?

Yes, because of the inherent symmetry in the above proposal for monetary coordination. When the Fed expands, the other principal central banks contract below normal growth — and vice versa. The result is no unusual growth in the monetary base for

the system as a whole — even as the dollar is pushed down to its purchasing power parity.

The great dollar depreciations of the 1970s were associated with increased monetary growth in the United States coupled with sometimes explosive monetary growth in Europe and Japan — as shown in Table 1. The reason for this loss of monetary control abroad was due to foreign central banks' resisting (not very successfully) having their own currencies appreciate when international portfolio preferences had shifted sharply away from dollar assets. Through direct interventions to buy dollars and sell their own monies, or through equivalent domestic monetary expansions to reduce interest rates, they lost monetary control.*

The system went askew in the 1970s because the U.S. Federal Reserve System failed to contract when international demand unexpectedly shifted into foreign currencies at a time when the dollar was not overvalued — at least not by today's standards. because the principal player, the Fed, was not playing the game correctly, the other central banks were simply overwhelmed.

Accidental or not, the great increase in "world" money growth in the 1970s had a strong inflationary impact on the prices of internationally tradable goods — whether manufactures or primary commodities. And all the major industrial economies experienced this price inflation — particularly those like the United States whose currencies had depreciated relative to the others.

In 1985, however, the situation is quite different. The dollar is truly overvalued by any reasonable standard. The portfolio pressure in the foreign exchanges is strongly in favour of dollar assets — which increases the derived demand for U.S. base money. We are starting from a situation of price stability — indeed, one of undue deflationary pressure in those sectors of the American economy that must compete on world markets.

Thus it is relatively safe to increase monetary expansion in the United States to drive the dollar down — and dangerous not to. But as long as the Fed remains expansionary, the other central banks must agree to maintain tight money during the transitional

^{*}For a more complete description of how the international money multiplier works, see R. McKinnon, "Currency Substitution and Instability in the World Dollar Standard," *American Economic Review*, June 1982, Vol. 72, No. 30.

correction in the dollar exchange rate. Once exchange rates were aligned, the three central banks would, ideally, have also agreed to manage their joint money supply to stabilize the common price level into the indefinite future.* Then private expectations would be favourable, and the unfortunate inflationary experience of the 1970s need not be repeated.

Of course, even if the dollar depreciates under these controlled circumstances, there will be a one time increase in the dollar prices of tradable goods, and a simultaneous decrease in their prices when measured in marks or yen. But this change in relative prices is necessary to rescue unprotected American farmers, manufacturers, and miners from heavy taxation imposed on them by the dollar's overvaluation.

^{*}This paper has not dealt with the precise definition of monetary targets for the three countries which would secure price stability in the longer run. This subject is treated in McKinnon, 1984, Ch. 5. Such a monetary program would avoid sharp changes in the collective money supply while gearing its long-term growth to maintain a stable purchasing power over a common, broad basket of internationally tradable goods.

Figure 1: The Dollar Exchange Rate, 1970-85

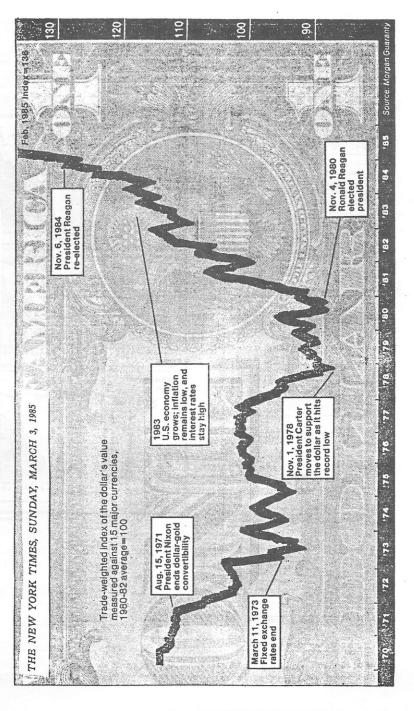


Figure 2: Individual Exchange Rates

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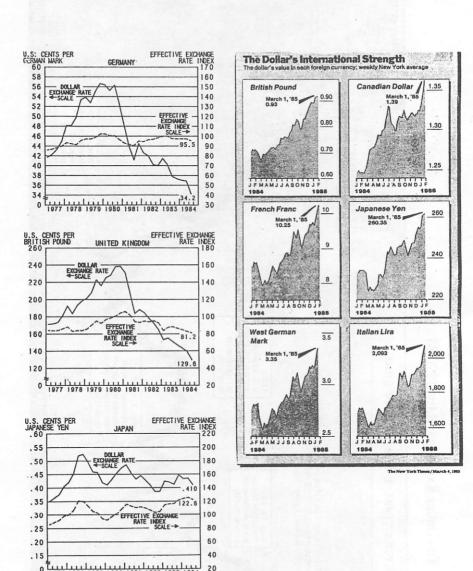
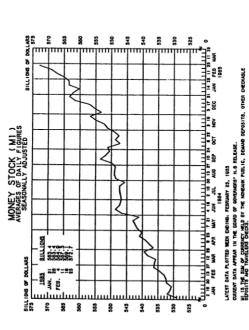
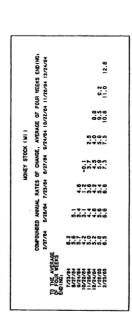
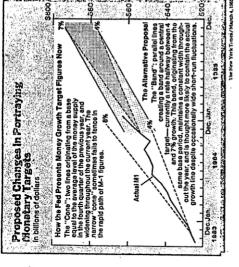
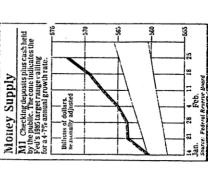


Figure 3: U.S. Money Growth and Federal Reserve Targets









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Figure 4: U.S. Interest Rates and the Dollar Exchange Rate

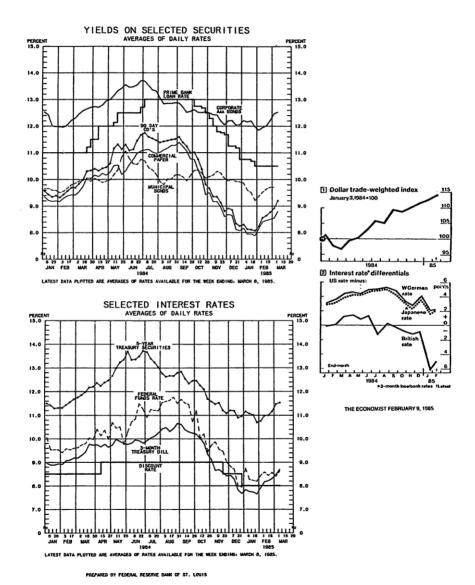


Table 1:

Money growth in domestic currencies, 11 industrial countries (percentage change in annual averages of M1)

	Belgium	Canada	France	Germany	Italy	Japan
(Weights:	(.0132)	(.0394)	(.0778)	(.0892)	(.0494)	(.0681)
GNP 1964)						
1956	2.9	-1.2	10.3	7.2	8.5	16.4
1957	-0.1	4.0	8.6	12.1	6.3	4.1
1958	5.8	12.8	6.4	13.1	9.9	12.8
1959	3.2	-3.2	11.4	11.8	14.0 `	16.5
1960	1.9	5.1	13.0	6.8	13.5	19.1
1961	7.7	12.4	15.5	14.8	15.7	19.0
1962	7.2	3.3	18.1	6.6	18.6	17.1
1963	9.8	5.9	16.7	7.4	16.9	26.3
1964	5.6	5.1	10.3	8.3	6.7	16.8
1965	7.4	6.3	9.0	8.9	13.4	16.8
1966	6.7	7.0	8.9	4.5	15.1	16.3
1967	4.7	9.5	6.2	3.3	13.6	13.4
1968	6.8	4.4	5.5	7.6	13.4	14.6
1969	2.3	6.9	6.1	8.2	15.0	18.4
1970	-2.5	2.4	-1.3	6.4	21.7	18.3
(Weights:	(.0172)	(.0487)	(.0885)	(.1122)	(.0471)	(.1404)
GNP 1977)						
1971	10.3	12.7	13.7	12.0	22.9	25.5
1972	15.0	14.3	13.0	13.6	18.0	22.0
1973	9.8	14.5	9.9	5.8	21.1	26.2
1974	6.8	9.3	12.6	6.0	16.6	13.1
1975	12.4	13.8	9.9	13.8	8.3	10.3
1976	9.6	8.0	15.0	10.4	20.5	14.2
1977	8.0	8.4	7.5	8.3	19.8	7.0
1978	6.7	10.0	11.2	13.4	23.7	10.8
1979	3.5	6.9	12.2	7.4	23.9	9.9
1980	-0.2	6.3	8.0	2.4	15.9	0.8
1981	3.6	4.3	12.3	1.2	11.1	3.7
1982	3.4	2.0	14.9	3.5	9.9	7.1
1983	5.0	10.2	12.1	10.3	17.3	3.0

⁻Not available.

Source: Federal Reserve Bank of St. Louis, "International Economic Conditions," June and August 1983.

Table 1: (Continued)

Nether- lands	Sweden	Switzer- land	United Kingdom	United States	World averuge	Rest of world
(.0144)	(.0167)	(.0113)	(.0796)	(.5408)		
-3.7	7.4	6.0	1.0	1.1	3.78	6.94
-2.0	3.4	1.8	2.7	-0.6	2.43	6.01
11.9	1.6	9.2	3.0	4.3	6.47	9.04
4.5	18.0	6.1	4.6	0.1	4.53	9.74
6.7	-1.2	10.2	-0.8	-0.4	3.72	8.58
7.7	10.7	8.1	3.2	2.9	7.39	12.68
7.5	5.6	16.6	4.4	2.1	6.18	10.99
9.8	8.1	8.9	0.3	2.8	6.86	11.65
8.5	7.7	0.2	5.0	4.1	6.16	8.59
10.9	6.4	12.8	2.7	4.3	6.59	9.30
7.2	9.9	3.1	2.6	4.6	6.31	2.33
7.0	9.8	6.0	3.2	3.9	5.49	7.37
8.8	-1.8	11.5	6.0	7.0	7.51	8.12
9.4	2.0	9.5	0.4	5.9	7.00	8.30
10.6	7.3	9.8	6.4	3.8	5.80	8.15
(.0228)	(.0195)	(.0148)	(.0572)	(.4316)		
16.7	9.0	18.2	11.8	6.8	12.45	16.74
17.7	11.8	13.4	13.1	7.1	12.21	16.10
7.4	9.6	-1.0	8.6	7.3	11.06	13.91
3.1	16.3	-1.7	4.8	5.0	7.78	9.88
18.7	15.2	2.4	15.6	4.7	8.83	11.96
11.8	14.0	7.3	13.8	5.7	9.91	13.10
14.3	8.3	4.7	14.4	7.6	8.72	9.57
5.3	13.6	12.7	20.1	8.2	10.99	13.11
2.7	12.7	7.8	11.5	7.7	9.23	10.39
4.2	21.1	-5.4	4.9	6.2	5.53	5.01
2.6	12.0	-0.9	10.0	7.2	6.50	5.96
4.9	9.8	3.1	8.3	6.5	6.96	7.31
10.6	11.4b	7.6	13.4	11.1	10.1	9.48

a. United States excluded.

b. Preliminary data.

Table 2:

Price inflation in tradable goods, 11 industrial countries (percentage change in annual averages of WPIs)

	Belgium	Canada	France	Germany	Italy	Japan
(Weights: GNP 1964)	(.0132)	(.0394)	(.0778)	(.0892)	(.0494)	(.0681)
1958	-4.4	0.4	5.1	-0.5	- 1.7	-6.5
1959	-0.3	0.8	7.2	-0.8	-2.9	0.9
1960	1.2	0.2	3.5	1.3	0.8	1.1
1961	-0.2	0.2	3.0	1.5	0.0	1.1
1962	0.8	1.1	0.6	0.9	3.2	-1.6
1963	2.5	1.3	2.9	0.5	5.3	1.6
1964	4.7	0.9	3.5	1.0	3.0	0.4
1965	1.1	1.3	0.7	2.5	1.8	0.7
1966	2.1	2.9	2.8	1.7	1.5	2.4
1967	-0.9	1.9	-0.9	-1.0	-0.2	1.7
1968	0.2	2.2	-1.7	-0.7	0.6	1.0
1969	5.0	3.7	10.7	1.9	3.6	2.0
1970	4.7	2.4	7.5	5.0	7.4	3.7
(Weights: GNP 1977)	(.0172)	(.0487)	(.0885)	(.1122)	(.0471)	(.1404)
1971	-0.5	2.0	2.1	4.3	3.3	-0.8
1972	4.0	4.3	4.7	2.5	4.1	0.8
1973	12.4	11.2	14.7	6.6	17.2	15.8
1974	16.8	19.1	29.1	13.5	40.8	31.4
1975	1.2	11.2	-5.7	4.6	8.5	3.0
1976	7.1	5.1	7.4	3.7	23.8	5.0
1977	2.4	7.9	5.6	2.7	16.6	1.9
1978	-1.9	9.3	4.3	1.2	8.4	-2.5
1979	6.3	14.4	13.3	4.8	15.5	7.3
1980	5.8	13.5	8.8	7.5	20.1	17.8
1981	8.2	10.1	11.0	7.7	16.6	1.7
1982	7.7	6.0	11.1	5.8	13.9	1.8
1983	5.2	3.5	11.0	1.5	10.5	-2.2

⁻Not available.

Source: IMF, International Financial Statistics, 1982 Yearbook and August 1983, line 63; wholesale price indices including finished goods and primary products.

Table 2: (Continued)

Rest o	World average	United States	United Kingdom	Switzer- land	Sweden	Nether- lands
		(.5408)	(.0796)	(.0113)	(.0167)	(.0144)
-0.30	0.68	1.5	0.8	-3.2	4.3	-1.3
1.00	0.57	0.2	0.3	-1.6	0.9	0.2
1.5	0.81	0.2	1.3	0.6	4.1	0.0
1.50	0.47	-0.4	2.6	0.2	2.2	-0.2
1.10	0.64	0.2	2.3	3.3	4.7	0.3
2.0	0.72	-0.4	1.0	3.9	2.9	2.4
2.2	1.15	0.2	3.1	1.3	3.4	6.1
1.9	1.98	2.0	3.5	0.6	5.2	3.0
2.5	3.02	3.4	2.9	1.9	6.4	5.0
0.7	0.45	0.2	3.1	0.3	4.3	1.0
0.8.	1.68	2.4	4.1	0.1	2.0	1.9
4.09	3.99	3.9	3.7	2.8	3.5	-2.5
5.65	4.54	3.6	7.1	4.2	6.8	4.6
		(.4316)	(.0572)	(.0148)	(.0195)	(.0228)
2.6	2.94	3.3	9.1	2.1	3.2	4.5
3.2	3.74	4.4	5.3	3.6	4.6	5.1
11.9	12.42	13.1	7.4	10.7	10.3	6.9
24.4	22.00	18.8	22.6	16.2	25.3	9.6
5.1	6.93	9.3	22.2	-2.3	6.4	6.7
8.0	6.58	4.6	17.3	-0.7	9.0	7.8
6.5	6.35	6.1	19.8	0.3	9.2	5.8
2.8	4.99	7.8	9.1	-3.4	7.6	1.3
9.39	10.73	12.5	12.2	3.8	12.5	2.7
12.83	13.33	14.0	16.3	5.1	13.9	8.2
8.13	8.50	9.0	10.6	5.8	11.6	9.2
6.8	4.80	2.1	8.6	2.6	12.6	6.6
3.82	2.73	1.3	5.5	0.5	11,2	1.8

a. United States excluded.

b. Preliminary data.

