

## IV Diversity in Exchange Arrangements

Since the breakdown of the Bretton Woods system, the exchange rate system has evolved in two distinct directions:<sup>19</sup> on the one side, there has been a move toward regional blocs of exchange rate stability—principally in Europe—but also including developing countries with fixed exchange rates vis-à-vis the U.S. dollar or the French franc, and with pegs to baskets of currencies; on the other, there has been greater flexibility between the major currencies.<sup>20</sup> As discussed below, there are good reasons why countries choose different exchange arrangements.

At least three factors seem to play a leading role in decisions on exchange arrangements. The first relates to *structural characteristics* of the economy, such as degree of openness, exposure to terms of trade shocks, and degree of nominal wage-price flexibility. A second important consideration is the *need to reinforce monetary policy credibility*; in some circumstances, this credibility can best be achieved through pegging to a “hard currency.” A third criterion is the existence of *other commitments to regional integration*, which can reinforce—and be supported by—exchange rate commitments. Of course, the choices of countries to have more or less exchange rate flexibility are not independent: for example, if exchange rates between some key currencies are flexible, other countries have to accept a degree of exchange rate variability against one or another of these key currencies.

### Structural Characteristics of Economies

One can imagine a continuum, starting from exchange rate flexibility at one end and going to complete fixity at the other. Exchange rate stability is desirable in itself because it is associated *ceteris paribus* with

reduced uncertainty—but it may involve a loss of monetary autonomy that would be useful in adjusting to external or internal shocks. Structural characteristics of economies—familiar from the literature on optimal currency areas—influence the desirability of being at one or another point on that continuum. Fixed exchange rates are likely to be more desirable the more open the economy is, in the sense of being subjected to external *nominal* shocks, and the more integrated it is with its neighbors. Fixed nominal exchange rates require that adjustment to real shocks take place solely through changes in price and wage levels, or through factor mobility—whereas under flexible exchange rates, some of the adjustment can occur through nominal appreciation or depreciation. Therefore, flexibility in nominal magnitudes is especially important under fixed rates for minimizing the costs of real macroeconomic disturbances.<sup>21</sup> Groupings of countries or regions within which factors are free to move (such as states or provinces within a single country) are less likely to suffer from lack of flexibility of nominal exchange rates. Fiscal transfers, such as within a regional grouping like the European Community (EC), also help to alleviate costs of adjustment.

On the other hand, economies that are large producers of primary commodities, that is, resource-based economies, are more likely to face large external real shocks, resulting from large changes in the relative price of commodities vis-à-vis manufactures. Countries like Australia, New Zealand, and, to a lesser extent, Canada, have substantial exports of primary commodities, and face greater variability in their terms of trade than do other industrial countries. The experience of Australia and New Zealand is instructive. Until the early 1980s, both countries operated pegged exchange rates, the bilateral rate against the U.S. dollar in the case of Australia and an effective exchange rate in the case of New Zealand. Positive terms of trade shocks

<sup>19</sup>In addition to these developments in exchange arrangements, significant economic policy coordination has also emerged among the major industrial countries in the post-1985 period.

<sup>20</sup>As of March 31, 1990, 30 countries were classified as having currencies pegged to the U.S. dollar, 14 to the French franc, and 46 to other currencies or baskets of currencies; 13 currencies had limited flexibility vis-à-vis either a single currency or group of currencies; and 48 countries had “more flexible” exchange arrangements (International Monetary Fund (1990), Appendix Table II.17).

<sup>21</sup>The degree of nominal flexibility may itself depend on the monetary policy regime: a commitment to resist inflationary pressures may make labor and product markets more flexible, and thereby lower the unemployment costs of negative supply shocks. If a “hard currency” policy associated with a pegged exchange rate enhances the anti-inflationary commitment, it may also increase the economy’s flexibility.



in the 1970s led to accelerating inflation and to real exchange rate appreciation. In the 1980s, and in the face of deteriorating terms of trade, both countries abandoned exchange rate fixity. Their experience indicates that terms of trade shocks may have severe consequences for output or inflation, and exchange rate flexibility may be an important means of cushioning those shocks.<sup>22</sup> Even in these circumstances, however, the advantages of flexibility have to be weighed against the other considerations discussed below.

### Credibility of Anti-Inflationary Monetary Policy

A central argument in favor of fixed nominal exchange rates is that they may impose “discipline” on domestic monetary and fiscal policies and thereby enhance the country’s ability to achieve price stability.<sup>23</sup> It is important here to distinguish between countries with and those without strong anti-inflationary credibility. The latter can easily justify pegging to the currency of a country with an established reputation for price stability as a means of disciplining both the authorities and the private sector. If credibility can be so established, it is likely to induce favorable changes in the structure of the economy, including lowering the risk premium in domestic interest rates and increasing the flexibility of wage-price determination.

In this situation, exchange rate stability is not in conflict with the objective of price stability; on the contrary, it becomes the *means* by which the low-credibility country establishes a nominal anchor to achieve price stability. Credibility for such a hard currency policy is not likely to be achieved costlessly or instantaneously. In a transition period there may be output costs in the face of domestic or external shocks. However, the credibility of the authorities and of the exchange rate commitment depends on convincing the private sector that the authorities are willing to bear those costs. Ultimately, when credibility has been established, the economy may function more efficiently, and exhibit lower average unemployment for a given inflation rate.

A classic illustration of this monetary policy strategy is provided by the experience of the European Monetary System (EMS) in the early 1980s. Since disinflation was then the priority in virtually all EMS countries and since Germany had the best reputation for price stability, there was a commonality of interests in trying to converge to the German inflation rate. Monetary policy in Germany thus served as the anchor of the system. While to date there have been 12 realignments (since

the beginning of the EMS in 1979), none of them has resulted in a revaluation relative to the deutsche mark, thereby leaving intact Germany’s reputation as an exporter of credibility; also, these realignments have usually not fully compensated for past inflation differentials—so that the resulting real appreciation for higher-inflation countries acts as a disincentive to inflation.<sup>24</sup>

The need to ensure the credibility of monetary policy is at the heart of the debate over proposals for a European central bank. An EC intergovernmental conference is currently considering ways of achieving full economic and monetary union among member countries. Such a union would involve a movement to irrevocably fixed exchange rates (and perhaps to a single currency) and the implementation of a common monetary policy by a supranational institution. The key to designing this institution is to ensure that it continues to place an absolute priority on price stability, as does the Deutsche Bundesbank, and that it is both *de jure* and *de facto* immune from political pressures for monetary financing or indirect subsidies.

Non-EMS countries in Europe may also benefit from an implicit or explicit exchange rate peg. The benefits depend inversely on the extent to which the central bank is independent and its monetary policy already credible. The comparison of Switzerland and Austria is instructive. The Austrian schilling since 1981 has virtually been pegged to the deutsche mark, while Switzerland has targets for money growth and thus allows wider exchange rate fluctuations vis-à-vis the deutsche mark; interest differentials relative to Germany have tended to be more variable for Switzerland than for Austria (Chart 2). It has also been argued that *de facto* independence of the central bank is greater in Switzerland than in Austria.<sup>25</sup> Despite the difference in policy regime, outcomes in terms of inflation have been very similar (and similar to Germany’s); the average rate of consumer price inflation over 1954–89 and 1981–89 was 4.1 percent and 3.6 percent, respectively, in Austria and 3.3 percent and 3.2 percent, respectively, in Switzerland, well below that for most other industrial countries (see Table 2). The key is monetary discipline, however it is achieved.

In Nordic countries, pegs to baskets of currencies have also helped to provide an anchor for monetary policies. From the late 1970s until recently, Sweden, Norway, and Finland all pegged to baskets whose weights

<sup>22</sup>Blundell-Wignall and Gregory (1990).

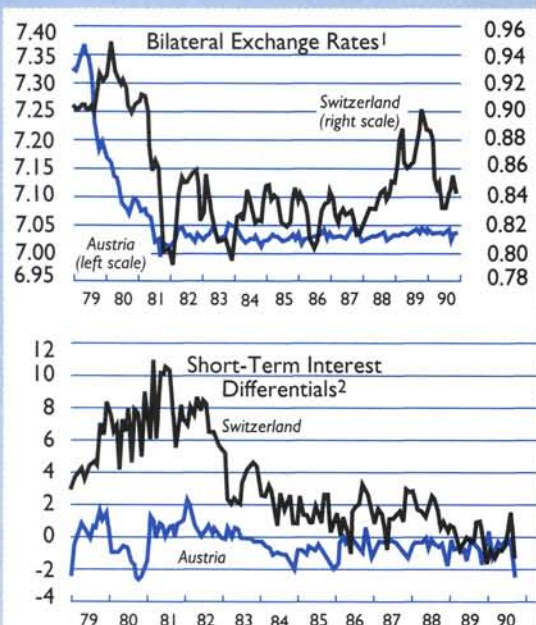
<sup>23</sup>Without such discipline, pegging to a strong currency would merely convert a noncredible monetary policy into a noncredible exchange rate policy. The effect of the exchange rate regime in disciplining fiscal policy is explored in Frenkel and Goldstein (1988b).

<sup>24</sup>If exchange rate realignments are ruled out, gaining competitiveness implies achieving a lower inflation rate than that of the anchor country for a time. Ungerer and others (1990) find that there is no systematic tendency for Germany to gain competitiveness relative to its exchange rate mechanism (ERM) partners when data for unit labor costs over the period since 1979 are considered.

<sup>25</sup>Genberg (1990). He quotes the Austrian National Bank’s 1985 Annual Report to the effect that one reason for adopting the hard currency policy was to make “. . . economic policy as a whole . . . less subject to pressures to take discretionary measures. . . .”



**Chart 2. Austria and Switzerland: Bilateral Exchange Rates and Short-Term Interest Rate Differentials Relative to Germany**



Source: International Monetary Fund, *International Financial Statistics*.

<sup>1</sup>Bilateral exchange rates are in local currency per deutsche mark.

<sup>2</sup>Short-term interest differentials are defined as German minus foreign rates.

reflected bilateral trade, but with certain modifications, including the exclusion of nonconvertible currencies by Sweden and Finland, and, since 1982, the use of multilateral weights by Norway. During 1990 and 1991, a decision was made in each of the three countries to peg to the European currency unit (the ECU), a basket of EMS currencies. Fixity of exchange rates has helped to moderate wage increases; however, the authorities have retained a measure of flexibility, both in the composition of the currency baskets and also in the peg itself.<sup>26</sup> In particular, there were sizable depreciations in the 1977–82 period. It has been argued that the management of the adjustable peg in these three countries achieved the desired goal of relatively low unemployment, though at the cost of higher inflation than the average for industrial countries.<sup>27</sup>

<sup>26</sup>Gylfason (1990).

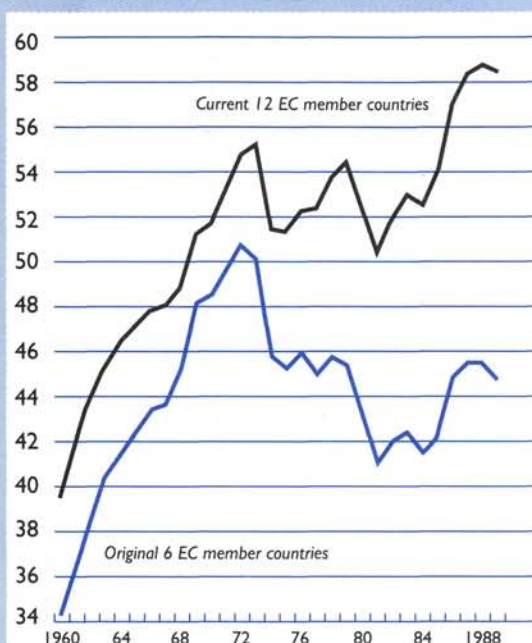
<sup>27</sup>Gylfason (1990). Average consumer price inflation in Sweden, Norway, and Finland in the periods 1954–89 and 1981–89 was 6.4 percent and 7.4 percent, respectively; compare Table 2 above.

## Regional Integration

Greater fixity of exchange rates among groups of countries has typically accompanied regional moves to greater economic integration. A case in point is the EC, where economic and political integration has proceeded rapidly in the past and will progress further in the future—aided by the creation of a single European market for goods and services, moves to harmonize legislation, and the removal of exchange controls. It is natural in this context for greater fixity of exchange rates to emerge from greater monetary integration; the creation of the EMS in 1979 and recent proposals of the Delors Committee to move to completely fixed exchange rates are reflections of this.

There has been a two-way interaction between regional integration and exchange rate fixity within Europe. Chart 3 shows a secular increase in trade among EC countries as a percentage of their total trade—albeit with some leveling off in the 1974–85 period, associated with an increase in the value of oil trade owing to price increases by the Organization of the Petroleum Exporting Countries (OPEC). With the expansion of trade within the EC, the costs of uncertainty related to fluctuating exchange rates have been magnified. Various policy initiatives also rely on a common unit of

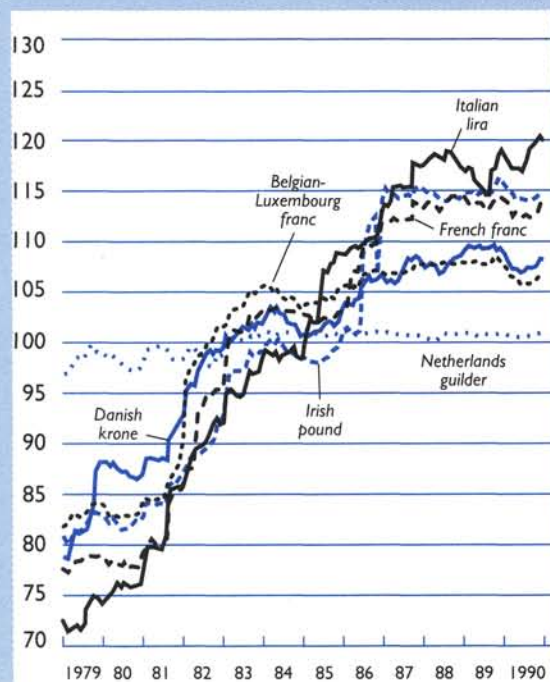
**Chart 3. Share of Intra-EC Trade as a Percentage of Total Trade, 1960–89**



Source: International Monetary Fund, *Direction of Trade Statistics*.



**Chart 4. Original ERM Countries: Bilateral Exchange Rates Against the Deutsche Mark**  
(March 1979–January 1991 = 100)



account: distortions are created if market exchange rates diverge too much from those rates. Conversely, the existence of EC supranational institutions and shared objectives has made it easier to progress toward monetary integration, since compromises are easier to achieve when negotiations range across a number of areas. Chart 4, which plots the exchange rates of ERM currencies against the deutsche mark since the formation of the

EMS in March 1979, shows that exchange rate fluctuations have been reduced since 1982, as a result of less frequent realignments.

Economic integration in other regions is also proceeding. Within North America, two-way trade—which is already substantial because Canada and the United States are each other's largest trading partners—should be further stimulated by the Canada-U.S. Free Trade Agreement; free trade with Mexico is currently under discussion. Exchange rate fluctuations have also been much smaller between the U.S. dollar and the Canadian dollar than between the U.S. dollar and other major currencies, in particular the deutsche mark and the yen (Chart 5). In Asia, there has been a considerable increase in intraregional trade and direct investment among Japan, the newly industrializing economies (NIEs), and other economies of Southeast Asia. Japan and its Asian neighbors now have substantial trade links (Table 6), albeit within a more geographically diversified overall trade pattern than in Europe. Japanese direct investment in the rest of Asia (roughly the figure under "other countries" in Table 7) has been important, though it has increased less rapidly in recent years than has direct investment in the United States.

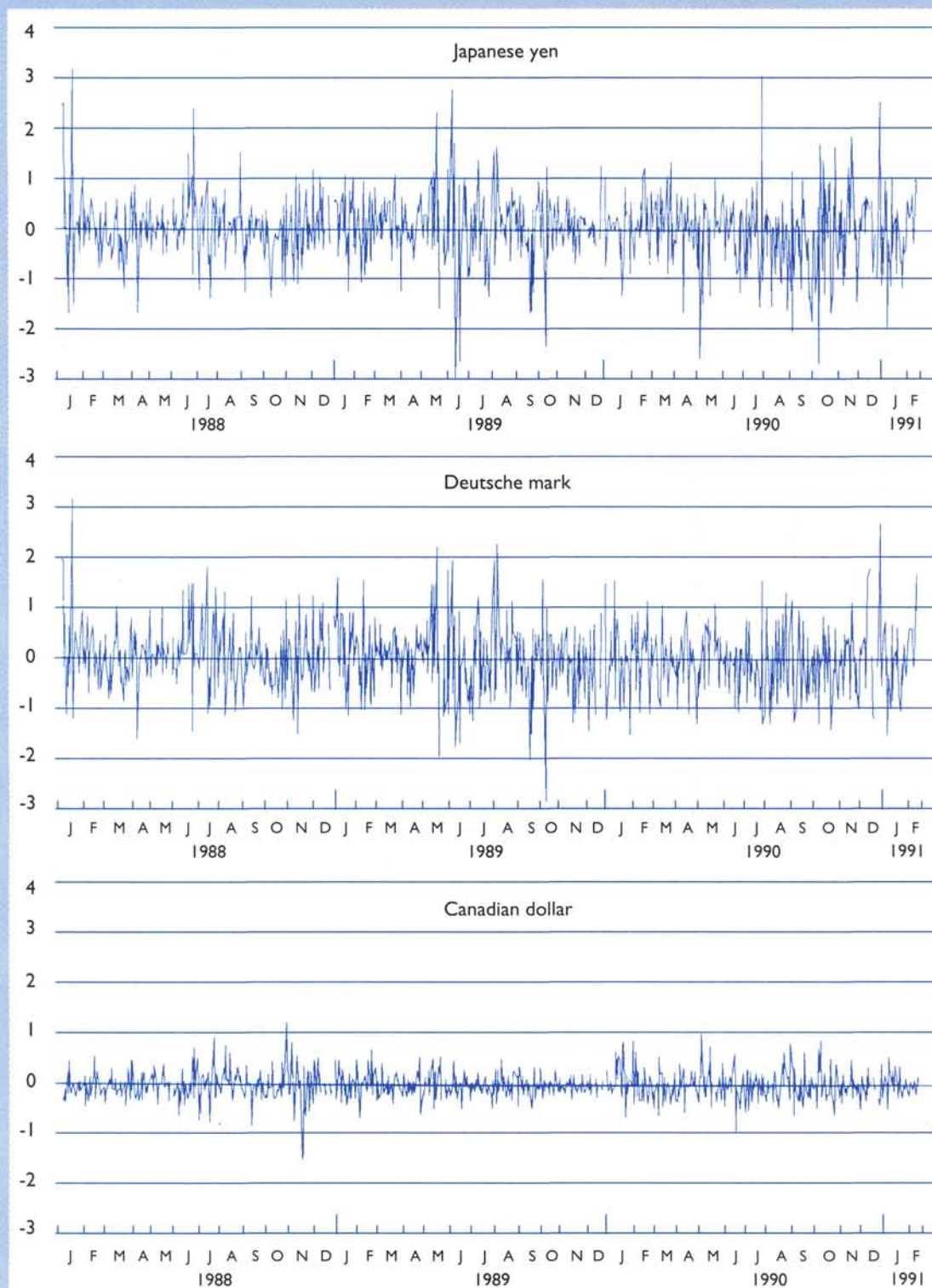
At this stage no one can know with any confidence whether the international monetary system will evolve in a "tri-polar" direction. The outcome will depend as much on political developments as on economic ones and will reflect decisions taken across a wide spectrum of countries, as exemplified by recent dramatic developments in Eastern Europe. As part of their overall efforts to stabilize their economies and to reorient them toward a more market-oriented structure of resource allocation, these countries will have to choose which exchange arrangements best meet their needs. This choice involves decisions not only on the desired degree of fixity of exchange rates but also on convertibility, on potential anchors for policy discipline, and on implications of changing trade patterns for reserves and for exchange rate management.

**Table 6. Non-Fuel Merchandise Trade Matrix, 1985**  
(In billions of U.S. dollars)

From	To			
	United States and Canada	Japan and Asian NIEs	European Community	Other
United States and Canada	(98.7)	43.3	48.4	78.6
Japan and Asian NIEs	117.1	(62.7)	37.7	78.8
European Community	66.8	22.4	(312.5)	185.1
Other	41.8	31.0	84.2	(98.5)

Source: United Nations data on exports. Figures in parentheses show intercountry trade within the regional grouping.

**Chart 5. Daily Percentage Changes in the U.S. Dollar Exchange Rates,  
January 1988-February 1991**





**Table 7. Japan: Direct Investment Outflows and Inflows, 1982-90**  
*(In millions of U.S. dollars)*

		To or From:					Other countries	
		All countries	OECD countries	United States	EC countries	Others	Communist bloc	Other countries
1982	Outflows	4,540	1,618	609	578	0		1,735
	Inflows	439	195	40	177	—		27
1983	Outflows	3,612	1,326	604	285	1		1,396
	Inflows	416	285	66	8	—		57
1984	Outflows	5,965	3,087	769	207	20		1,882
	Inflows	-10	-93	49	37	—		-3
1985	Outflows	6,452	2,557	1,534	420	58		1,883
	Inflows	642	514	54	103	1		-30
1986	Outflows	14,480	7,973	2,748	649	96		3,014
	Inflows	226	199	54	14	—		-41
1987	Outflows	19,519	9,641	3,594	1,682	183		4,419
	Inflows	1,165	623	118	-23	—		447
1988	Outflows	34,210	18,969	5,793	3,030	606	2,688	3,124
	Inflows	-485	-599	100	42	2	-17	-13
1989	Outflows	44,130	21,238	9,746	4,532	713	5,005	2,896
	Inflows	-1,054	-1,530	327	50	—	91	8
1990 <sup>1</sup>	Outflows	53,374	32,348	9,374	4,324	598	4,678	2,052
	Inflows	2,006	980	756	58	2	170	40

Source: Bank of Japan, *Balance of Payments Monthly*, various issues.

<sup>1</sup> First half, annual rates.