

The Macroeconomic Policy Implications of Trade and Currency Zones

*Jacob A. Frenkel
Morris Goldstein*

The motivation for a conference on trade and currency zones is not hard to find. Over the past five to six years, many of the initiatives for improving the design and functioning of the trade and exchange rate system have been advanced in a regional rather than in a global context.

The most dramatic developments have been in Europe—and this even putting aside both the historic events in Eastern Europe and German unification. After more than a decade of experience with the European Monetary System (EMS), the twelve member countries of the European Community (EC) are now actively engaged in discussions and negotiations on the path to Economic and Monetary Union (EMU); a sister Intergovernmental Conference is simultaneously discussing political union. Proposals for a European EMU have, of course, been made and discussed before—most notably in connection with the Werner Report (1971)—without bearing fruit. This time, however, prospects for the establishment of a central European monetary authority, a fully integrated financial area, and a single European currency (at least within the EC) have to be taken seriously. For one thing, some significant preparatory steps have already been taken, including the liberalization of capital flows within the EC as part of the broader based progress toward completion of the internal market, and the enlargement of the Exchange Rate Mechanism (ERM) of the EMS—buttressed in October

1990 with the entry of the United Kingdom. For another, the process of moving toward EMU has gotten down to concrete specifics. Thus, for example, considerable background work has been undertaken on both the draft statutes for a European Central Bank (ECB) and on the kinds of fiscal policy indicators that would be useful in discouraging excessive fiscal deficits of individual member countries. To be sure, a number of contentious issues remain that make hazardous any projections about the speed, membership, and perhaps, even the end result of the process. But the momentum toward EMU is difficult to deny.

There are no proposals in either North America or in Asia and the Pacific that are as ambitious in the contemplated scope and depth of regional economic integration as what is now being negotiated in Europe. In this sense, while one can speak of the possible evolution of a tripolar system, it is clear that the three poles are forming at very different speeds. Still, there are some **important** initiatives—mostly in the trade area—that merit attention. A free trade agreement (FTA) between Canada and the United States was signed in January 1988 and went into effect in January 1989. In March 1991, Argentina, Brazil, Paraguay, and Uruguay signed the Treaty of **Asunción** which envisages the formation of a tariff-free common market by the end of 1994. Then in April 1991, Mexico, Venezuela, and Colombia announced plans to create a free trade zone by July 1994. And in July 1991, negotiations began among Canada, Mexico, and the United States on the formation of a North American FTA. Looking yet farther down the road, President Bush's Enterprise for the Americas sets out the long-term goal of a free trade zone stretching all the way from Alaska to Tierra del Fuego.

Thus far, the countries of Asia and the Pacific have been the most cautious in putting forward any formal, regional trade or currency proposals. This may reflect, in part, the importance of North America, and to a lesser extent Europe, in that region's foreign trade. At the same time, it is relevant to note that Japan's exports to its regional neighbors are almost as large as its exports to North America, and that for the Asia and Pacific region as a whole, intraregional trade (averaging across exports and imports) now accounts for a larger share of total trade than it does in North

America.¹ Also, Japanese direct investment in the rest of Asia has expanded rapidly in recent years. Finally, there is some recent empirical evidence that financial policy, particularly interest rate policy, in a number of Asian countries is now more influenced by monetary policy developments in Japan than by developments in other financial centers outside the region.²

This paper discusses the macroeconomic policy implications of currency zones. By a currency zone, we mean an agreement by a group of countries to irrevocably fix their exchange rates to one another—including the option of a common currency—and to permit full integration of their financial and banking markets.³ We have focused on currency zones because the implied loss of the nominal exchange rate as a policy instrument carries with it more extensive implications for the conduct of monetary and fiscal policies than are likely to result from say, trade zones alone (where no such exchange rate commitment exists); in any case, several other papers being prepared for this conference are slated to emphasize the implications of trade zones. We have also chosen to illustrate the policy issues involved by reference to European or American experience. We would submit, however, that many of these issues are also likely to be of relevance in other currency unions, ranging from the CFA franc zone in Africa to the USSR.

In the next section of this paper, we review a set of long-term developments in the world economy that help to place the emergence of currency and trade zones in broader perspective. Specifically, we highlight trends in relative economic size and in the international use of currencies, in relative inflation performance, in the behavior of key-currency exchange rates, in the geographical pattern of international trade, and in the integration of capital markets. Against this background, we next address the conduct of monetary and exchange rate policy in an emerging currency union. Here, we concentrate on the goals of monetary policy, on the consequences of giving up use of the nominal exchange rate, and on the choice between gradual and rapid transition to a monetary union or currency zone. In the final section, we investigate the implications of a currency zone for the conduct of fiscal policy. After discussing the incentives for fiscal adventurism in a currency union, we examine market discipline,

fiscal rules, and peer group surveillance as possible mechanisms for achieving greater fiscal policy discipline.

Trends in the world economy

Exchange rate and trade policies, including the formation of currency and free trade zones, do not evolve in a vacuum. Instead, they typically reflect broader, long-term developments of both an economic and political nature. In this section, we review six economic trends that will condition the feasible evolution of the system in the period ahead.

Changes in relative economic size

A key development in the world economy over the past thirty years has been the trend toward *greater symmetry in economic size* among the industrialized countries of North America, Europe, and the Asia and Pacific region. In short, and as documented in Table 1, the relative economic size of North America—and of the United States in particular—has declined, while that of other regions—especially, the Asia and Pacific region led by Japan—has increased. The changes have been more marked for shares of world output than for shares of world trade. The industrial countries of Europe now account for about a third of the world's output, slightly more than the share generated by the United States and Canada combined, and more than twice the share attributable to Japan, Australia, and New Zealand. Europe's share of world trade—at near 50 percent—is also twice as large as that of any other region.

The main implication of these changes in relative economic size is that the future is likely to be characterized by a sharing of economic leadership. Attempts to recreate a Bretton Woods type system with a single **hegemon** are not apt to be viable. Instead, the system is likely to have a *multipolar* orientation.

The international use of currencies

A second notable development in the world economy has been the trend toward increasing international use of currencies other than the

Table 1*
Relative Economic Size¹
(In percent)

	Shares of World Output ²		Shares of World Trade ³	
	1962	1988	1962	1990
Western Hemisphere				
United States	41.5	25.8	15.1	13.8
Canada	3.0	2.7	4.8	3.7
Developing Countries	5.0	6.5	6.4	3.5
Total	49.6	34.9	26.3	21.1
Asia and Pacific Region				
Japan	4.4	11.2	4.0	7.7
Australia	1.3	1.4	1.9	1.2
New Zealand	0.3	0.2	0.6	0.3
Developing Countries	7.7	9.0	7.2	13.6
Total	13.7	21.9	13.7	22.7
Europe				
Industrial Countries	28.6	32.1	46.2	48.3
Developing Countries	2.6	2.5	3.1	2.0
Total	31.2	34.6	49.3	50.3
Other Developing Countries				
Africa	2.6	2.8	4.6	2.4
Middle East	2.9	5.8	6.1	3.5
Total	5.5	8.6	10.7	5.9

¹Country groupings are consistent with the classification in Fund publications, which divide the developing countries into five areas: Africa, Asia, Europe, Middle East, and Western Hemisphere. Excluded from the world total are the output and trade of the country group "U.S.S.R. and other nonmembers n.i.e." as defined in *Direction of Trade Statistics: Yearbook 1990*.

²GDP at market prices. Shares for 1962 are derived from data in IFS, *Supplement on Output Statistics*, Supplement Series No. 8, 1984. Shares for 1988 are based on 1980 GDP levels in U.S. dollars, from the same source, and 1981-88 growth rates of GDP at constant prices, from IFS *Yearbook*, 1990.

³Based on the sum of exports plus imports. Shares for 1962 are derived from data in IFS, *Supplement on Trade Statistics*, Supplement Series No. 15, 1988. Shares for 1990 are derived from the 1991 WEO data base.

*Taken from Goldstein and Isard, 1991.

U.S. dollar—particularly the deutsche mark and the Japanese yen. Selected indicators of the international use of currencies are shown in Table 2.

Data on the currency composition of official reserve holdings, of Eurocurrency deposits, of external bank loans, and of external bond issues confirm that the U.S. dollar remains the dominant international currency but also that its weight has been declining; meanwhile, the weights of the deutsche mark and yen have been rising. Estimates of currency turnover in foreign exchange markets, based on survey evidence collected by the Federal Reserve Bank of New York and the Bank of England, are not available over a long enough time period to identify reliably any underlying trends; they are, nevertheless, useful for illustrating the prominence of the deutsche mark, the yen, and the pound sterling among nondollar currencies.

Figures on the currency invoicing of international trade point in the same general direction as other indicators but are heavily influenced by large differences across the major countries in the shares of their own exports and imports that are denominated in national currency units. In this connection, the relatively low use of the yen as an invoicing currency for Japan's foreign trade is striking. On the export side, this has been attributed by Tavlas and Ozeki (1991) to: the relatively large share of Japanese exports that go to the United States, where a high share of imports is invoiced in the importer's currency; the relatively high transactions costs involved in obtaining trade finance through the bankers' acceptance market in Japan; and decisions by Japanese exporters to price in the importer's currency as part of a strategy aimed at preserving market share in the importing country. On the import side, more than half of Japan's imports consist of primary products, which are traditionally invoiced in dollars and sterling.

Table 3 provides two snapshots of the exchange rate practices of International Monetary Fund (IMF) member countries, one taken last year and one taken in 1975. While changes in the use of particular currencies are dwarfed by other trends—namely, the switch away from single-currency pegs toward currency-basket pegs, the forma-

Table 2
Selected Indicators of the International Use of Currencies

(In percent)

	U.S. dollar	Deutsche mark	Japanese yen	Pound sterling	Swiss franc	French franc
Shares in financial stocks and capital flows						
a. Identified official holdings of foreign exchange of Fund member countries						
1968 ¹	54.1	1.3	—	13.4	—	1.9
1980 ²	68.6	14.9	4.4	2.9	3.2	1.7
1990 ³	49.6	18.7	8.6	3.1	1.5	2.0
b. Eurocurrency deposits						
1981-84	74.0	11.4	1.8	1.4	5.8	0.9
1989 ⁴	59.7	13.9	5.5	3.1	4.9	1.3
c. External bank loans						
1981-84	83.3	1.7	5.9	3.1	1.2	
1985-89 ⁴	68.3	2.6	11.3	9.0	1.3	n.a.
d. External bond issues						
1981-84	63.2	6.3	5.7	3.4	14.7	
1985-89 ⁴	48.0	8.2	10.0	6.5	10.7	

Table 2 (continued)

Shares of currencies in foreign exchange transactions against the U.S. dollar

New York interbank market

March 1980	32	10	23	10	7
April 1989 ⁵	33	25	15	12	3

London interbank market

March 1986	28	14	30	9	4
April 1989 ⁵	22	15	27	10	4

Shares of currencies in invoicing of exports from the six largest industrial countries

1980	59.2	17.5	3.4	8.7	—	8.2
1987 ⁶	46.2	23.1	6.5	9.3	n.a.	9.3

Shares of national exports and imports invoiced in national currency

1980

Exports	97.0	82.3	29.4	76.0	—	62.5
Imports	85.0	43.0	2.4	38.0	—	33.1

1988'

Exports	96.0	81.5	34.3	57.0	n.a.	58.5
Imports	85.0	52.6	14.1	40.0	n.a.	48.9

¹IMF Annual Report, 1975.²IMF Annual Report, 1990.³IMF, preliminary estimates for Annual Report 1991, Table I.3⁴Tavlas and Ozeki (1991), Table 17, WP/91/2.⁵Tavlas (1991), Table 12, WP/90/3.⁶Tavlas (1991), Table 10, WP/90/3.⁷Tavlas and Ozeki (1991), Table 13, WP/91/2.

Table 3
Exchange Rate Practices of Fund Members, 1975 and 1990

Number of Fund member countries whose currencies:	As of			
	June 30, 1975 (percent)		March 31, 1990 (percent)	
Are pegged to a single currency	81	66.4	53	35.1
Of which:				
U.S. dollar	54	44.3	34	22.5 ²
French franc	13	10.7	14	9.3
Pound sterling	10	8.2	0	0.0
Participate in the exchange rate mechanism of the EMS	0	0.0	9	6.0
Are pegged to a composite of other currencies	19	15.6	41	27.2
Of which:				
SDR	5	4.1	7	4.6
Other	14	11.5	34	22.5
Managed floating'	4	3.3	27	17.9
Float independently or jointly	18	14.8	21	13.9
Total	122	100.0	151	100.0

Source: IMF *Annual Report*, 1975 (Table 9) and IMF *Annual Report*, 1990 (Table 11.17).

¹In 1975, includes countries whose currencies are pegged to others but change the peg frequently in light of some formula; in 1990, includes countries whose currencies are adjusted according to a set of indicators.

²Includes Bahrain, Qatar, Saudi Arabia, and United Arab Emirates whose exchange rates showed limited flexibility against the U.S. dollar. Their exchange rates are determined on the basis of up to ± 7.25 percent. However, because of the maintenance of a relatively stable relationship to the U.S. dollar, these margins are not always observed.

tion of the EMS, and the increased resort to managed floating based on a set of indicators—here too, one notices the reduced—albeit still dominant—use of the dollar. Interesting enough, while the yen carries a relatively high weight in some currency baskets, not a single Fund member country has yet opted for pegging (exclusively) to the yen. Pegging to the deutsche mark is encompassed (de facto) within EMS arrangements.

Again, we would regard the growing international use of currencies other than the dollar as suggesting that a sharing of leadership responsibilities will be needed to promote international monetary stability. A multicurrency system has both advantages and disadvantages. Because official reserves and private financial holdings are diversified, it implies a reduced vulnerability of portfolio holders to adverse shocks or weak policies in any particular anchor country. Also, the presence of several competing monies may provide a source of policy discipline. At the same time, the greater potential for asset substitution implies that continued cooperation among the major players will be desirable.

Relative inflation performance

Suffice to say that developments over the past several decades have strengthened the case for **emphasizing** price stability among the objectives of macroeconomic policy. Tables 4 and 5 summarize the inflation experience of industrial and developing countries, respectively.

Two conclusions stand out. First, the three largest countries have been among the leaders in holding down inflation. As indicated in Table 4, Germany's inflation performance has been consistently at or near the top of the industrial-country league standings in each of the last three decades; for the 1954-90 period as a whole, its inflation performance has been unsurpassed. Japan has established strong anti-inflationary credibility by turning in the best inflation performance of the 1980s; its inflation record over the longer period has been less consistent than that of Germany but nevertheless still ranks high, particularly if wholesale price inflation were substituted for consumer price inflation in Table 4. (Indeed, on that former measure, Japan emerges with the second-best inflation performance

Table 4*
Consumer Price Inflation Rates Among
Industrial Countries, 1954-90¹

(In percent, with rank ordering in parenthesis)

	1954-90	1954-60	1961-70	1971-80	1981-90
United States	4.4(7)	1.5(4)	2.8(6)	7.9(7)	4.7(7)
Canada	4.8(8)	1.5(5)	2.7(5)	8.1(8)	6.1(9)
Japan	5.0(9)	1.9(8)	5.8	9.1	2.0(1)
Australia	6.2	2.6	2.5(2)	10.5	8.2
New Zealand	8.0	3.1	3.8	12.5	11.3
Germany	3.1(1)	1.6(6)	2.6(3)	5.1(2)	2.6(3)
France	6.3	4.3	4.0	9.7	6.7
Italy	7.9	2.1(9)	3.9	13.9	10.1
United Kingdom	7.0	2.3	4.1	13.8	6.3
Austria	4.1(4)	2.2	3.6(9)	6.3(3)	3.6(5)
Belgium	4.3(5)	1.4(3)	3.0(7)	7.4(6)	4.7(8)
Denmark	6.4	2.6	5.9	9.9	6.3
Finland	7.1	4.4	5.0	11.3	6.8
Greece	10.2	4.6	2.1(1)	14.5	18.9
Iceland	23.0	5.5	11.7	34.1	37.0
Ireland	7.7	2.3	4.8	13.8	8.3
Luxembourg	3.9(3)	1.1(1)	2.6(4)	6.7(4)	4.5(6)
Netherlands	4.4(6)	2.8	4.3	7.3(5)	2.5(2)
Norway	6.1	2.8	4.5	8.4(9)	8.1
Portugal	11.0	1.6(7)	4.2	18.3	17.7
Spain	9.6	6.3	6.2	15.1	9.7
Sweden	6.1	3.2	4.1	9.2	7.3
Switzerland	3.3(2)	1.1(2)	3.3(8)	5.0(1)	3.2(4)

Source: IMF, World Economic Outlook database.

¹Average annual rates.

*Taken from Goldstein and Isard, 1991.

over the 1954-90 period). The United States, after doing relatively well in controlling inflation in the 1950s and 1960s, experienced an erosion of monetary policy credibility in the 1970s; the Federal Reserve then came a long way toward rebuilding that credibility by acting forcefully to bring down inflation during the 1980s.

The second conclusion is that the developing countries as a group have had much more difficulty in holding down inflation. By way of illustration, for the five regional country-groupings depicted in Table 5, median inflation rates have ranged from 8 to 13 percent during the 1970s, and from 7 to 13 percent during the 1980s; moreover, there have been quite a number of cases of acute or chronic inflation.

Table 5*
**Consumer Price Inflation Among Developing Countries,
by Region, 1971-90**

	Average Inflation ¹		Median Inflation ¹		Number of High ² Inflation Episodes ²		
	1971-80	1981-90	1971-80	1981-90	Chronic	Acute	Runaway
Africa	14.1	17.0	10.8	10.2	10	5	1
Asia	10.0	8.7	8.8	7.7	2	1	1
Europe	14.6	59.9	8.3	12.9	2	1	2
Middle East	13.6	14.2	11.2	7.1	2	1	1
Western Hemisphere	40.8	232.1	13.0	11.7	10	6	9

¹Annual changes, in percent, from *World Economic Outlook* data bank. Average inflation rates represent arithmetic averages over each decade of weighted geometric averages for each year, where weights are proportionate to the U.S. dollar values of GDPs over the preceding three years.

²Based on individual country experiences reported in *World Economic Outlook*, May 1990, Table 13. Chronic inflation implies annual rates of 20-80 percent for five or more consecutive years. Acute inflation implies annual rates over 80 percent for two or more consecutive years. Runaway inflation implies annual rates over 200 percent for one year or more.

*Taken from Goldstein and Isard, 1991.

As is well known, one of the key motivations for fixing the exchange rate is to "tie one's hands" on monetary policy, so as to share in the superior anti-inflationary credibility of the anchor country. The classic case of this **phenomenon**, at least during the 1980s, has been the disinflation experience of the EMS countries, relying on the nominal anchor provided by the Bundesbank.

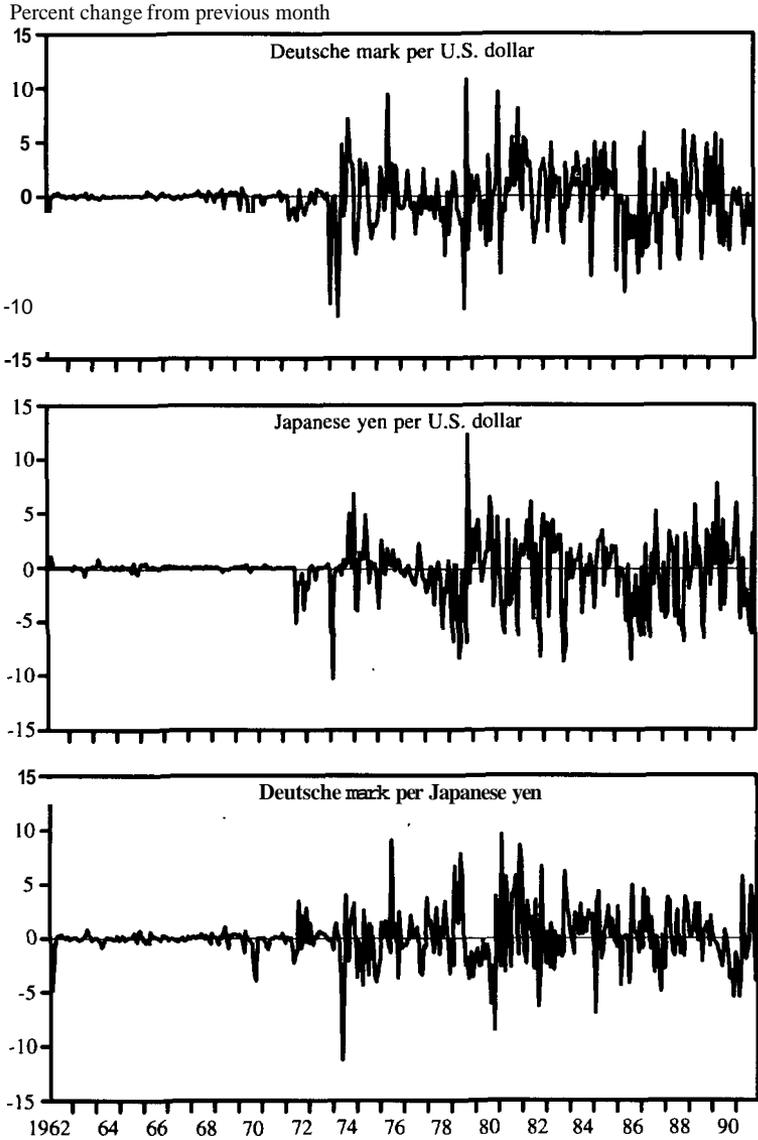
The main messages that ought to be taken away from Tables 4 and 5 are: (1) that the three largest industrial countries have a legitimate claim to serve as potential nominal anchors for regional currency areas, and (2) that many developing countries, and some industrial countries as well, have an incentive to find—be it via exchange rate targets or otherwise—a better nominal anchor than they have had in the past.

Behavior of key-currency exchange rates

Another significant feature of the global landscape has been the behavior of key-currency exchange rates. For our purposes, it is enough to note that: (1) the short-run variability of key-currency exchange rates has been much larger under the regime of generalized floating than under the previous exchange rate regime (see Chart 1); (2) there have also been large medium-term swings in real exchange rates for the three major currencies (see top panel of Chart 2); and (3) real exchange rate variability has primarily reflected the variability of nominal exchange rates under the present regime of managed floating (see bottom panel of Chart 2).

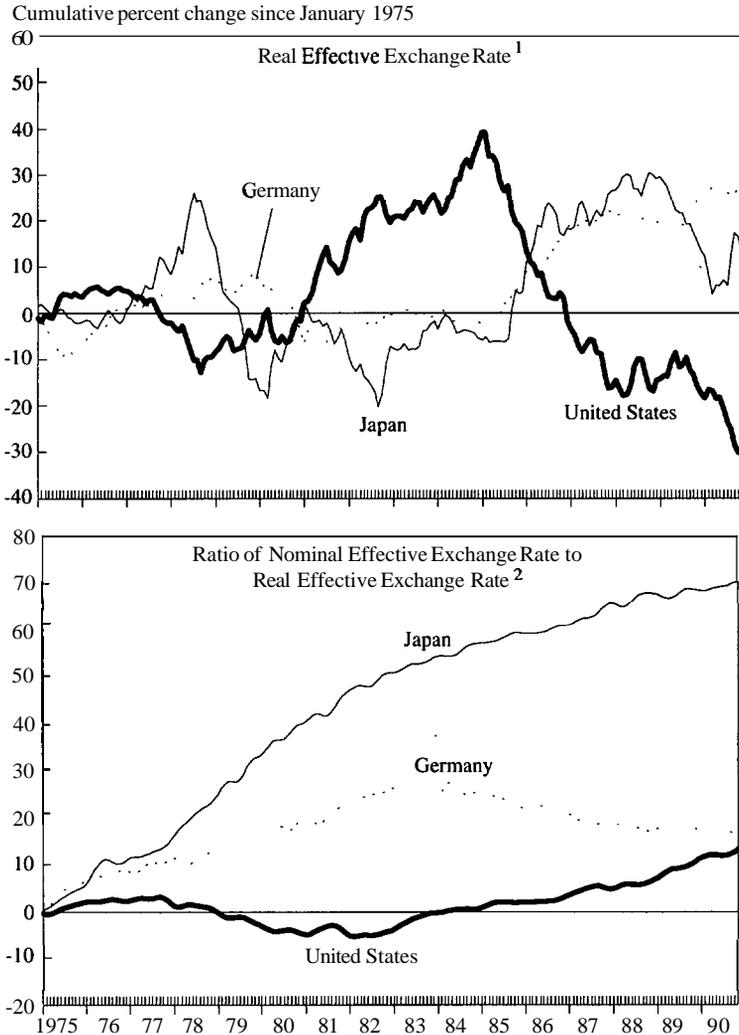
In papers prepared for earlier Jackson Hole symposia, we have discussed at some length the criteria that might be employed to evaluate whether this short-run variability of exchange rates is "excessive" and whether the longer-run swings of real exchange rates represent "misalignments."⁴ We will not repeat that debate here. Instead, we will merely note that there are those who hold the view that exchange rate variability, on the order of what has been experienced over the past twenty years, is costly enough to warrant a change in the system in the direction of more fixity of nominal exchange rates.⁵

Chart 1 Volatility of Nominal Exchange Rates, 1961-90



Source: IMF, International Financial Statistics

Chart 2 Cumulative Changes in Effective Exchange Rate Indices, 1975-90



Source: IMF, International Financial Statistics

¹Based on relative normalized unit labor costs in manufacturing for 17 industrial countries.

²Equivalent to the ratio of the foreign nominal normalized unit labor cost index to the domestic nominal normalized unit labor cost index.

Geographical patterns in international trade

Yet a fifth development in the global economy worth mentioning is that **intra**regional trade has progressed to such an extent that countries could potentially shield a significant portion of their total foreign trade from (nominal) exchange rate variability and/or from trade barriers by joining common currency **and/or** free trade areas with their major regional trading partners. Tables 6 and 7, in fact, set out the results of a calculation that speaks to this possibility. In those tables, it is assumed that the world is divided into three blocs, each of which contains one of the three largest industrial countries. Other countries are assigned to the bloc with which they have the most bilateral trade. Not surprisingly, this leads to the developing countries of the Western Hemisphere being included in the American or dollar bloc, and to the developing countries of the Pacific being assigned to the yen bloc; the developing countries of Africa and the Middle East wind up in the European or ECU bloc.

In this hypothetical, **tripolar** world, about 40 percent of the dollar bloc's trade would be internal; the corresponding percentages for the yen bloc and the ECU bloc would be higher—roughly 50 and 80 percent, respectively.

If it is thought to be excessive, there are two ways to reduce the amount of exchange rate variability. One way is to reduce the degree of variability of a given number of exchange rates; the other way is to reduce the number of exchange rates. We would not want to pretend that the hypothetical blocs outlined above are either optimal currency areas or optimal trade blocs. Surely, they are not—especially on the trade side where we remain to be convinced that anything short of a global free trade area makes sense as a long-run goal. Our point instead is merely to demonstrate that calls for more exchange rate stability do not necessarily imply that this must come from reduced variability across the three major currencies.

Integration and globalization of capital markets

The sixth and final development on our list is the growing integration and globalization of capital markets. Chart 3 portrays but one

shorthand measure of this increased integration. It assesses the integration of domestic and offshore markets by the interest differential between the cost of interbank funds denominated in the same currency in the two markets. As is evident, these differentials were reduced dramatically during the 1980s, especially for countries like France which relaxed their capital controls. The behavior of covered interest rate parity tells a very similar story. Admittedly, evidence of capital market integration is less compelling when one moves from shorter to longer-term instruments and when one looks at correlations of national saving and investment (of the Feldstein-Horioka variety).⁶ But the main qualitative conclusion that capital market integration has increased is robust. There is likewise little doubt that the "foreign" presence in major domestic financial markets has been on a rising trend. Two indicators for the United States are representative: whereas foreign and international entities held approximately 7 percent of the federal government's outstanding securities at the end of 1970, the proportion had risen to more than 16 percent by 1988; also, between 1970 and 1985, the number of foreign banking offices in the United States rose from about 50 to more than 780.

In our view, the main implication of this increased integration of capital markets—aside from the traditional efficiency gains—is that policy authorities in the industrial countries will find it harder to insulate themselves from interest rate or regulatory developments abroad—and this no matter what the exchange rate regime.

Monetary and exchange rate policies in a currency union

So much for the global environment. In this section, we consider the implications of a currency zone for the conduct of monetary and exchange rate policy. We treat the two together because the nature of exchange rate commitments has an important bearing on the way in which monetary policy can be implemented. No country can simultaneously expect to maintain free trade, open capital markets, a fixed exchange rate, and independent monetary policy; this is what Padoa-Schioppa (1988a) has called "the inconsistent quartet." Indeed, if a country chooses the polar case of a binding exchange rate commitment, namely, a common currency, it is natural to regard it

Table 6*
Distribution of Exports by Destination, 1989¹

(In percent)

Exporting Region	Destination of Shipments													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	(Columns represent countries or groups corresponding to rows)													
Western Hemisphere														
1. United States	22	14	35	12	2	—	16	31	27	1	1	1	1	3
2. Canada	74	...	2	75	6	1	—	5	12	10	—	1	1	1
3. Developing countries	3	2	15	53	6	—	—	5	12	27	1	3	1	2
4. Regional total	21	14	11	46	10	2	—	12	23	24	1	1	1	3
Asia and Pacific Region														
5. Japan	34	2	3	40	...	3	—	30	33	20	—	1	1	3
6. Australia	11	1	1	13	22	...	5	30	62	16	1	3	1	5
7. New Zealand	13	2	3	18	18	19	...	19	56	18	2	2	1	3
8. Developing countries	25	2	1	28	15	2	—	31	49	16	1	2	2	3
9. Regional total	27	2	2	31	10	2	1	31	44	18	1	2	1	3

Table 6 (continued)

Europe, Africa, Middle East																		
10. Industrial Europe ²	8	1	2	1	1	2	1	—	5	8	71	2	2	3	3	8	2	
11. Developing Europe	4	—	1	5	1	—			4	—	5	40	6	30	2	10	89	
12. U.S.S.R. et al. ³	2	—	1	3	6	—			11	—	18	46	28	...	2	2	79	
13. Africa	20	1	4	25	5	—			5	—	11	52	2	1	7	2	6	3
14. Middle East	14	—	4	18	18	1	—		16	35	30	5	2	2	7	4	6	
15. Regional total	8	1	2	1	1	3	1	—	6	10	65	4	3	3	4	7	9	

¹Based on IMF, *Direction of Trade Statistics: Yearbook 1990*. Sums of individual shares may differ from subtotals and totals due to rounding error. — indicates less than 0.5. ... indicates identically zero or not measured.

²Based on totals for all industrial countries less amounts for United States, Canada, Japan, Australia, and New Zealand.

³Albania, Bulgaria, Czechoslovakia, the German Democratic Republic, and the U.S.S.R., plus three countries—Cuba, the Democratic People's Republic of Korea, and Mongolia—from outside the region. Hungary, Poland, and Romania, which were members of the Fund in 1989, are included in developing Europe, and Viet Nam is among the developing countries of Asia.

*Taken from Goldstein and Isard. 1991.

Table 7*
Distribution of Imports by Origin, 1989'

(In percent)

Importing Region	Origin of Shipments														
	(Columns represent countries or groups in corresponding rows)														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Western Hemisphere															
1. United States	...	19	9	28	21	1	—	22	43	22	1	—	3	3	29
2. Canada	71	...	2	73	6	—	—	6	13	13	—	—	1	—	14
3. Developing countries	43	2	15	59	8	—	—	5	13	21	—	1	2	3	28
4. Regional total	19	13	9	40	16	1	—	16	33	20	1	—	2	3	26
Asia and Pacific Region															
5. Japan	24	4	4	32	...	5	1	33	39	15	—	2	2	10	29
6. Australia	22	2	1	25	20	...	4	20	44	27	—	—	1	3	31
7. New Zealand	15	2	1	18	18	25	...	13	57	22	—	—	—	3	25
8. Developing countries	15	1	2	18	22	3	—	33	58	16	1	2	1	5	24
9. Regional total	18	2	2	23	15	4	1	32	51	16	1	2	1	6	26

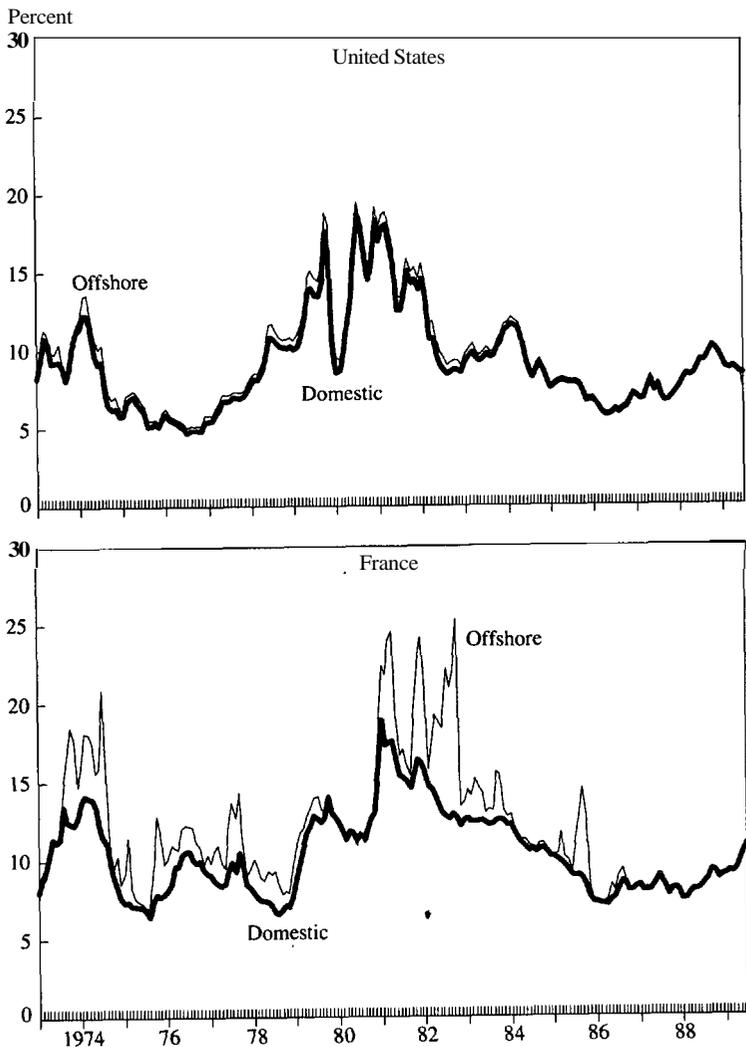
Table 7 (continued)

Europe, Africa, Middle East																	
10. Industrial Europe	7	1	2	1	1	4	—		5—10	71	2	2	3	2	8	0	
11. Developing Europe	5	—	2	7		2	1	—	4	7	46	6	24	2	8	86	
12. U.S.S.R. et al.	6	1	4	1	2	5	1	—	11	17	40	27	...	1	3	71	
13. Africa	8	1	2	1	1	7	—		9—16	59	2	2	7	3	7	3	
14. Middle East	14	1	3	17		8	2	—	12	22	45	6	1	1	8	6	1
15. Regional total	8	1	2	1	1	5	1	—	6	11	66	3	3	3	3	7	8

¹See notes to Table 6. For consistency with Table 6, imports (in dollar amounts) are measured as the sum of exports from all countries of origin.

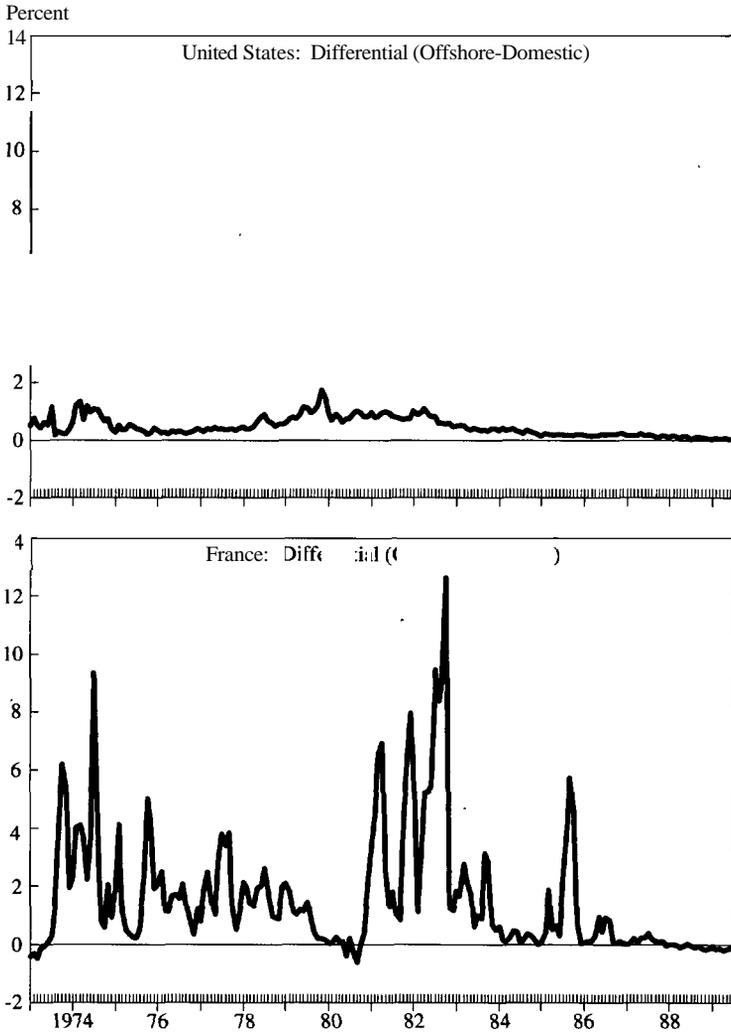
*Taken from Goldstein and Isard, 1991.

Chart 3
Domestic and Offshore Interest Rates:
United States and France, June 1973-December 1989



Sources: Data Resources, Incorporated; Organization for Economic Cooperation and Development (OECD)

Chart 3 (Continued)
Domestic and Offshore Interest Rates:
United States and France, June 1973-December 1989



Sources: Data Resources, Incorporated, Organization for Economic Cooperation and Development (OECD)

as having implicitly also chosen the polar case of coordinated monetary policy, namely, a central monetary authority carrying out a common monetary policy.

In what follows, we first discuss the goals of monetary policy. We then go on to consider the factors that will determine the costs of abandoning the nominal exchange rate as a policy instrument. After that, we tackle the contentious issue of slow versus rapid transition to monetary union.

The goals of monetary policy

For any currency union—or even a quasi-fixed exchange rate regime—to be viable, it is essential that the participants reach a consensus on the goals of monetary policy. In our view, prospects for achieving such a consensus are much better now than they were ten years ago. The reason is that there is now more support for the proposition that *price stability* should be elevated above other *goals*.⁷ It is not that price stability is intrinsically more important than say, high employment or economic growth; rather, it is the recognition that these other goals are unlikely to be achieved on a sustainable basis in the absence of low *rates of* inflation. In line with this theme, there is apparently agreement that a European Central Bank should have an explicit mandate to pursue price stability; also, to give some teeth to this mandate, it is proposed to give the ECB a significant degree of *independence* and to prohibit it from granting credit to the public sector.

It cannot, of course, be ruled out that any initial consensus on orienting monetary policy toward price stability in a currency union would be subject to strains once it comes time to actually implement that policy. The two strains most discussed (aside from *country-specific* real shocks and debt bailouts, both of which are addressed later on in this paper) are losses of seigniorage revenues associated with moving to lower inflation rates, and longer-term intercountry differences in income and employment.

The worry about seigniorage revenues is that some members of the currency union may rely on them more than others for helping

to finance government expenditure. For the **formerly** high-inflation members of the union, loss of these revenues in the process of disinflation, particularly when it is difficult to increase revenue from more conventional forms of taxation, may therefore exacerbate an already weak fiscal situation. In this connection, it has been estimated by Dornbusch (1988) that some members of the EMS obtained as much as 3 percent of their GNP from seigniorage over the 1976-84 period.

While the seigniorage issue can be a transitional problem of some consequence, it should not, in our view, be regarded as a longer-term obstacle to a currency union. To begin with, high rates of inflation also produce distortions and ones that are likely to be more pervasive and costly for the future development of an economy than those associated with reduced reliance on the inflation tax. In addition, it should not be taken for granted that there is no scope for improving the structure of the tax and expenditure system to offset the loss of revenue from seigniorage; in some cases, in fact, the decline in seigniorage revenues could provide the impetus for improvements in fiscal management that likewise have longer-term benefits. Once the transition to a common monetary policy is made, it is also relevant to think of distributing whatever seigniorage revenues of the ECB are consistent with low inflation to participants in the union. We find it instructive that seigniorage concerns have not prevented the convergence to lower inflation in the EMS from **continuing**—with the result that reliance on seigniorage revenues in recent years (in Italy, Greece, Portugal, and Spain) has been considerably less than in earlier **periods**.⁸

The concern about intercountry differences in income and employment is that they could lead to a tug of war on the stance of monetary policy between more and less prosperous participants, with the less advantaged ones seeking a common monetary policy that was not consistent with low inflation. Certainly, monetary history is full of examples of these types of regional conflicts. Again, however, we do not see longer-term differences in say, per capita income levels, as a prohibitive factor. After all, sizable income differences continue to exist among regions of the United States; yet we are told that there is no consistent pattern in meetings of the

Federal Open Market Committee for participants from lower-income (or even cyclically-depressed) districts to press for a looser stance of (the common) monetary policy than those from more prosperous districts. True, regional income differences in the United States are much smaller than those in some other potential common currency areas (the EC), the United States is a political union whereas other areas may not be, and the United States has by now had a long time to become familiar with the collective benefits associated with belonging to a common currency area. Still, we would argue that less prosperous regions too have much to gain from moving closer to price stability, and that there is little evidence that participation in a currency union, by itself, is inconsistent with a gradual convergence of regional or intercountry income and employment differences.

Another question pertinent to the goals of monetary policy in a currency area is what attitude to adopt toward *current account imbalances*. Here, it is interesting to note that historically, not all potential members of a European EMU have given the same weight to current account balance relative to other goals. Masson and Melitz (1990) highlight the comparison between France and Germany. Over the 1963-88 period, the average current account imbalance relative to GNP was -0.4 percent for France versus 1.2 percent for Germany; the corresponding figures for average inflation performance were 7.2 percent for France and 3.6 percent for Germany. Since 1987, the inflation performances of the two countries have been very similar whereas current account positions have diverged sharply (at least prior to German unification). There is also the phenomenon during the 1987-90 period of capital flowing within the EMS from low-inflation countries to countries whose inflation and nominal interest rates are higher (Italy and Spain).⁹ While the latter countries have experienced declines in competitiveness and current account deficits over this period, these deficits have been over-financed by capital inflows. There is also the matter of a currency union's aggregate current account position which could be a factor influencing its exchange rate vis-à-vis nonunion currencies. In the case of the EC, the aggregate current account position (relative to GNP) has been close to balance over the past decade or so, but it need not necessarily be so in the future.

Our view is that one needs to know the origin of a current account imbalance before it can be decided if it needs correction, and if so, how to correct it. Nonzero current account positions arise from a variety of sources, some of which are "good" and require no intervention, and some of which are "bad" and do require adjustment. An imbalance that arises, for example, from reversible inter-country differences in the age distribution of the population—which in turn generate different life-cycle private saving patterns—is likely to be benign. In contrast, an imbalance that reflects unsustainable foreign borrowing to finance a consumption spree surely falls in the malign category. More generally, in evaluating external imbalances, it will be useful to look at: whether the government's fiscal position is appropriate, whether any increased investment associated with the external imbalance is likely to earn a rate of return that exceeds the cost of borrowing, and whether any increased consumption is temporary and desirable for purposes of consumption smoothing. In an integrated financial area, the default premia that public and private borrowers have to pay will provide a signal of the market's evaluation of the underlying economic conditions. Still, monetary policy in a currency union is apt to operate more smoothly if participating governments themselves reach a consensus on how they will regard current account imbalances.

We turn next to the role that *exchange rate stability* should play in the design of monetary policy. It is convenient if we **first** deal with exchange rate management vis-a-vis countries outside the currency zone. Clearly, the firmer are exchange rate obligations with respect to nonunion currencies, the more constrained will be the common monetary policy within the currency zone. On other occasions, see Frenkel, Goldstein, and Masson (1989a), we have argued that it would be desirable for the international monetary system to evolve in the direction of a "two-tier" exchange rate policy, where exchange rate commitments were "looser" and "quieter" across the three major currencies than within budding regional currency areas. This would mean that monetary policy in the anchor countries would give the highest priority to price stability, except in those unusual cases when there is evidence of large exchange rate misalignments.

We base our view for this kind of evolution of the system on the

following points. (1) The largest anchor 'countries have found it possible to achieve relatively good inflation **performance** without tying their hands on monetary policy to 'exchange rate targets. Also, while exchange rate targets may have reduced the costs of disinflation for countries with lackluster earlier inflation records, the available empirical evidence indicates that this is not the case for the anchor country itself. In fact, Giavazzi and Giovannini (1989) find that the relation between output and inflation has actually worsened in Germany during the EMS period. (2) The inflation performance of the anchor countries could well suffer if exchange rate commitments intruded unduly into the orientation of monetary policy, with unfavorable repercussions for countries that count on the anchor countries to **export** stability. (3) So long as the anchor countries do give the highest priority to price stability, tight and ambitious exchange rate commitments will lack the credibility they need to be effective, since market participants will learn that when push comes to shove, interest rate adjustments necessary to defend exchange rate targets are not forthcoming. (4) Real exchange rates across the poles need to change over time to reflect changes in real economic conditions. (5) A currency area that contained the three major currencies is likely to be too large; for example, stochastic simulations of empirically-based macroeconomic models (see Frenkel, Goldstein, and Masson [1989b] and Taylor [1986]) generally find that fixing exchange rates among the United States, Japan, and Germany implies larger variances for key macroeconomic variables than more flexible exchange arrangements. (6) Better disciplined monetary and fiscal policies in the anchor countries, which admittedly would need to be induced by mechanisms outside the exchange rate regime, would contribute to better behaved exchange markets for the anchor currencies.

This is not a call for a return to "benign neglect" in the management of major-currency exchange rates. We view a reasonable degree of stability of key-currency exchange rates as a public good for the system. For that reason, we think the larger industrial countries should continue to develop their own quiet estimates of equilibrium real exchange rates. These estimates of equilibrium exchange rates would be subject to considerable margins of error but there is little alternative to undertaking this exercise unless one is

willing to accept the proposition that "the market rate is always the right rate." In those unusual cases where there is large difference between the estimated equilibrium rate and the market rate, the larger industrial countries would need to consider intervening. The intervention could take a variety of forms—ranging from concerted, sterilized exchange market intervention to, if necessary, coordinated adjustments in monetary policies. We stress that these would be *contingent* responsibilities—contingent upon strong evidence of large misalignments. While such an exchange rate commitment would clearly be less ambitious than those inherent in most target zone schemes, it may well be more effective because it is more credible (that is, more consistent with monetary authorities' revealed preference among occasionally competing policy goals).

Consequences of loss of the nominal exchange rate

Choosing a strategy for exchange rate management *vis-à-vis* currencies outside the currency zone is, of course, only part of the picture. The more pressing task is apt to be how to manage exchange rates *within* an emerging currency area. Suppose that potential participants in the currency zone have concluded that more fixity in their internal exchange rate relationships could yield sizable benefits (in terms of lower uncertainty facing trade and investment decisions, lower transactions costs, reduced costs of disinflation, better inflation performance, and so on). Prudence would still demand that they also weigh the consequences of having less resort to—or losing altogether—the nominal exchange rate as a policy instrument.

This is precisely where the traditional literature on the criteria for an optimal currency area demonstrates its continuing relevance. Here, we review briefly six of these criteria, namely, factor mobility, openness, diversification, wage-price flexibility, the structure of shocks, and the availability of other cushioning mechanisms. Also, we summarize some of the empirical evidence reviewed in Masson and Taylor (1991) and in Eichengreen (1990) to infer how those criteria might apply to a European EMU.

As Mundell (1961) pointed out thirty years ago, the higher is the degree of factor mobility within an area, the more likely it is that

country-specific shifts in demand can be accommodated without increasing unemployment. As regards labor mobility, Europe would seem to be disadvantaged—at least relative to the United States.¹⁰ A ballpark estimate would be that labor mobility in the EC—as measured say, by the proportion of the population that changes residence—is perhaps only a third or a half as high as within the United States. The higher dispersion of unemployment rates in Europe is also consistent with a lower labor mobility there.¹¹ Now it could be that labor mobility would rise somewhat as exchange rate uncertainty falls in an EMU¹²—but one can doubt that the inhibiting influences of language and cultural differences would still not carry the day.

Europe comes out much better on the criteria of openness and regional interdependence. If an area is very open to foreign trade, large changes in the nominal exchange rate may generate disruptive movements in the cost of living (see McKinnon [1963]). Also, the greater the share of intraregional trade, the greater the area which will benefit from the reduction in transactions costs associated with use of a common currency. Seen as a currency area, the EC countries have an openness ratio that is very similar to that of both Japan and the United States.¹³ Moreover, as suggested in this paper, the degree of intraregional trade is higher in Europe than it is either in North America or in the Asia and Pacific region.

The more diversified is an economy's production structure, the less likely is it that a demand or supply shock to an individual industry will lead to an economywide disruption. For the most part, the EC countries do have such a well diversified production structure, with relatively low reliance on agriculture (Greece, and to a lesser extent Portugal, are the exceptions) and with manufacturing accounting for somewhere between one-fifth and one-third of total production; see Table 8. It is relevant to note that even though the EC countries differ nontrivially in their exposure to oil price fluctuations, the latest oil price shock has apparently not been associated with any exchange rate pressure within the EMS—contrary to the predictions of some observers.

The degree of wage-price flexibility also counts. If a country has

Table 8*
Selected Industrial Countries: Shares of Production by Category in 1986¹

(In percent)

	Agriculture ²	Construction	Energy and Mining ³	Manufacturing	Services
Canada	4.0	7.6	9.0	23.4	56.0
United States	2.3	5.5	5.8	22.2	64.2
Japan	3.1	8.1	4.2	31.4	53.3
France	4.7	6.6	3.8	27.8	57.0
Germany	2.1	6.1	4.2	38.3	49.4
Italy	5.0	6.7	5.7	27.2	55.5
United Kingdom	2.1	6.7	7.8	27.6	55.9
Belgium	2.5	5.8	4.1	25.4	62.2
Denmark	6.6	8.3	3.0	24.6	57.5
Greece	17.3	7.4	5.1	21.1	49.1
Netherlands	5.2	6.3	9.1	23.4	56.0
Portugal	8.6	6.4	3.6	33.8	47.5
Spain	6.1	7.5	3.4	31.2	51.8

Source: OECD National Accounts

¹GDP at current prices. Shares are scaled to sum to 100.

²Including hunting, fishing, and forestry.

³Mining and quarrying (including petroleum and natural gas production), plus electricity generation and gas and water distribution.

⁴Excluding government services.

*Taken from Goldstein and Masson, 1991.

a high degree of real wage rigidity, then nominal exchange rate changes will be of little use in attempting to alter employment and net exports. Similarly, if nominal wages are already flexible, then the freedom to alter the nominal exchange rate may not add much. Empirical work suggests that wage behavior in Europe is closer to the real wage-rigidity pole, while that in the United States is closer to the nominal wage-rigidity one (Bruno and Sachs [1985]). This would be consistent with more active use of the nominal exchange rate in the United States than in Europe. On a broader level, however, it raises the question of how to increase the flexibility of real wages in Europe. It remains to be seen whether increased competition in goods and factor markets associated with completion of the internal market (1992) will increase the flexibility of wages and prices, as some have suggested (Viñals [1990]), or alternatively, whether European unions and business associations will be able to consolidate market power across a wider area.

Criterion number five is the structure of shocks hitting the zone. *Ceteris paribus*, the more asymmetric or country-specific are these shocks, the greater the costs of abandoning the nominal exchange rate. One finding of recent empirical research is that the shocks hitting Europe are likely to be more symmetric than would those buffeting a larger currency zone, say, one composed of Europe and the United States combined. There is also the related issue of the policy response to shocks which, if implemented in a beggar-thy-neighbor fashion, could, itself, be a source of instability. Indeed, a recent EC Commission study, *One Market, One Money* (1990), employs the assumption that further progress toward monetary union would, *inter alia*, reduce the incidence of beggar-thy-neighbor policy responses to shocks, and in so doing, improve macro-economic performance. Maybe.

Last but not least, one needs to consider the availability of other policy instruments that could be used to counter country-specific, real shocks, given that monetary and exchange rate policies will be already spoken for. The obvious candidates are automatic fiscal stabilizers and private capital markets.

Sachs and Sala-i-Martin (1989) argue that the system of fiscal

federalism in the United States provides a significant, shock-absorbing function by altering federal **tax** payments and transfers to states and regions experiencing asymmetric income fluctuations. They estimate, in fact, that federal taxes and transfers cushion roughly one-third of the effects of region-specific shocks on disposable income. Similar estimates, carried out by Masson and Taylor (1991), suggest that in Canada, the corresponding figure for federal taxes and transfers is about one-quarter. In both countries, it is the alteration in federal tax payments—rather than that in transfers—that provides most of the cushioning effect.

In contrast, it has been estimated that at present (unionwide) taxes in the EC compensate for no more than one percent of **country**-specific income shocks. On first reaction, this would seem to suggest that Europe needs a unionwide fiscal authority on the scale of that in the United States. Such a conclusion would be too hasty. The principal reason is that the allocation of responsibilities for carrying out fiscal policy, as well as the structure and cyclical sensitivity of revenues and expenditures, are very different between the two areas. For starters, whereas the EC budget is presently about 1 percent of EC GNP and is not expected to exceed 3 percent even after completion of the single market, the federal budget in the United States accounts for roughly one-quarter of U.S. GNP. Again relative to GNP, the budgets of national governments in Europe are larger than that of the U.S. federal government. A second difference—emphasized by Mussa (1991)—is that while U.S. states generally show relatively low counter-cyclical movement in their budget positions and have revenue sources (for example, the property tax) and expenditure patterns quite distinct from those of the federal government, national European governments emerge in this regard as quite similar to the U.S. federal government. The upshot of all this is that much of what is done by the federal government in the United States is done by **national** governments in Europe. As such, a more limited role for a federal fiscal authority in Europe is by itself no indictment. What is important is that there be some cushioning mechanism in a currency zone to deal with region-specific shocks—not **who** does the cushioning. A second reason to be cautious about the need for a larger, federal fiscal authority in Europe is that estimates of the greater cushioning effect of region-specific shocks in the United States seem

to be quite sensitive to how such shocks are measured. For example, von **Hagen** (1991) finds that if income transfers attributable to long-run differences in prosperity are separated from short-run cyclical disturbances, then the cushioning effect of the U.S. federal fiscal system is much smaller. In a similar vein, Atkeson and **Bayoumi** (1991), after distinguishing labor income from capital income and large U.S. states from smaller ones, find a cushioning effect on labor income from taxes and transfers that is similar as between large U.S. states and EC countries.

In principle, it is possible for region-specific income fluctuations to be smoothed without any assistance from the public sector. Specifically, if individuals used financial markets to geographically diversify their sources of income, then they would not be as vulnerable to region-specific fluctuations. Atkeson and **Bayoumi** (1991) have, in fact, just subjected this conjecture to empirical testing. They report two main findings. The first **one** is that individuals in the United States who derive most of their income from capital are able to insulate their incomes from fluctuations in the regional economy. In contrast, fluctuations in capital income in Europe are far more idiosyncratic—a result that provides further corroboration that capital markets in Europe have been less integrated than those in the United States. The second finding is that, in both the United States and Europe, regional labor incomes are closely tied to regional labor products and are not insured by significant countercyclical income from capital. The modest insurance against regional labor income shocks that does exist comes from government transfers and taxes. Thus, while, in theory, private capital flows can be a substitute for publicly-provided insurance mechanisms, in practice, this has not been the case.

To sum up, the literature on optimal currency areas provides a direct answer to the question of whether a group of countries seeking to form a currency zone can afford to give up the nominal exchange rate as a policy instrument. That answer is "it all depends." Further, the criteria that the answer depends on—being linked to structural and institutional characteristics of economies—imply that some country groupings will be more viable than others, and even that the same grouping will be more viable at one point in time than at

another. Applying these criteria to the EC, for example, produces the conclusion that the EC is closer to an optimal currency area than would be a larger and more heterogeneous grouping which also included Japan and the United States. At the same time, there are clearly some operating characteristics (for example, labor mobility, real wage flexibility, capital market integration) on which the EC presently stands at a disadvantage relative to some existing currency areas (the United States), and others (for example, degree of divergence of real economic variables, of debt positions, and of fiscal, policy behavior) that raise questions about whether it is yet "ready" to go further in that direction. It is to some of the relevant transition issues that we turn next.

Transition to a monetary union or currency zone

Even after a group of countries have decided that it is in their interest to move to irrevocably fixed exchange rates and to a single monetary authority, there is still the question of how rapidly to proceed from here to there. There are three options: go fast, go slow, go fast and slow (that is, split the group into two parts, with one sub-group going on a fast track and the other on a slower one). In Europe, this debate about the speed of transition has centered around the "gradualist" recommendations of the Delors Report (1989) which proposed a three-stage transition to monetary union in order to give the participating countries and the new institutions time to adjust.

The case for a *rapid transition* to monetary union rests primarily on three grounds:¹⁴ (1) that it gives maximum credibility to exchange rate stability by eliminating exchange rates within the union; (2) that it minimizes the period of instabilities and vulnerabilities associated with the coexistence of full capital mobility, adjustable exchange rates, and multiple monetary authorities; and (3) that it captures more of the efficiency gains associated with moving closer to one money.

In our view, the most important argument for a rapid transition to a common currency is that a common currency will give maximum credibility to the authorities' commitment to fixed exchange rates. This is because market participants realize that a common currency

is harder to "undo" than other kinds of fixed exchange rate arrangements. So long as separate exchange rates exist, markets may reason that authorities have not really given up their option to change them in exceptional circumstances — and this even in the face of both a long period since the last realignment and official statements galore pledging allegiance to the goals of monetary union. In this connection, Giovannini (1990) notes that even with extremely close monetary policy coordination with Germany and no realignments of their exchange rates *vis-à-vis* the deutsche mark for a long time, both Austria and the Netherlands continue to pay a premium on their short-term interest rates relative to Germany; similarly, while the interest rate premium paid by France has declined markedly with the convergence of French inflation rates to the German level and with the absence of franc devaluations since 1987, it has not totally gone away. Taking a longer-term perspective, Giovannini also argues that the most plausible explanation for the persistent pattern of average, *ex-post* excess returns on lira and franc deposits relative to deposits on deutsche marks is continuing, expected exchange rate changes that never took place. The main point is that it may be very difficult to eliminate exchange rate uncertainty and to achieve complete convergence of inflation and interest rates in the presence of separate exchange rates. The more one worries about the adverse effect of exchange rate uncertainty on trade, investment, and resource allocation in general, the more significant is such a distortion. Because adoption of a common currency minimizes the probability of further changes in exchange rates, it also offers the opportunity to make a final adjustment in exchange rates to deal with drifts in competitiveness and accompanying current account imbalances.

The second case for a rapid transition is really the case against the alternatives. More specifically, the concern here is that with the disappearance of capital controls, increased opportunities for the diversification of currency portfolios, and the continuation of current account imbalances, debt refinancings, and the like, both currency substitution and speculative attacks against fixed rates will increase. This, in turn, could render national monetary policies less effective and make defense of fixed rates more difficult (if not infeasible). These potential vulnerabilities are why some participants in the European EMU debate have argued that stage two should be short.

It is also why Padoa-Schioppa (1988b) has emphasized that if this stage of the transition is to be viable, participating countries will need to enhance their monetary policy coordination, including a readiness to engage in large-scale exchange market intervention and in coordinated adjustments in interest rates; establishment of a recycling mechanism to temporarily accommodate demands for currency diversification; and greater recourse to joint decisionmaking. Even then, some would argue that these are only band-aids and that the only real solution is to attack the problem at its source by making indivisible the responsibility for key monetary policy decisions and by eliminating exchanges within the zone. If that were done, the question arises whether the demand for money within the currency zone would be stable. In this connection, Kremers and Lane (1990), using a two-step error correction model, report that a stable, aggregate demand for narrow money can be identified for a group of countries participating in the **ERM**; in fact, they find that this aggregate function is more satisfactory than comparable money demand functions in individual countries. The intuitive explanation they offer for this finding is that the improved performance that comes about from capturing currency substitution and portfolio effects in the aggregate equation more than makes up for the reduced performance associated with imposing the same money-demand parameters on all countries in the sample.

The third argument for a rapid transition is that a common currency is the only way to eliminate all exchange-rate-related transactions costs within the zone. Most of these transactions costs are associated with bid-ask spreads and other commissions on foreign exchange-rate transactions. It has been estimated (Gros and Thygesen [1990] and EC Commission [1990b]) that the direct savings in transactions linked to adoption of a common currency could amount to about one-quarter to one-half of 1 percent of EC GDP; for small, open economies with "small" currencies (for example, **Belgium-Luxembourg**, Denmark, Ireland) and for countries with as yet relatively unsophisticated financial markets (for example, Greece, Portugal, and Spain), the estimated savings are larger—perhaps on the order of one-half to nine-tenths of 1 percent of their **GDPs**. This is obviously not a make-it-or-break-it rationale for a common currency but it is not peanuts either (0.25 percent of EC GDP amounts to

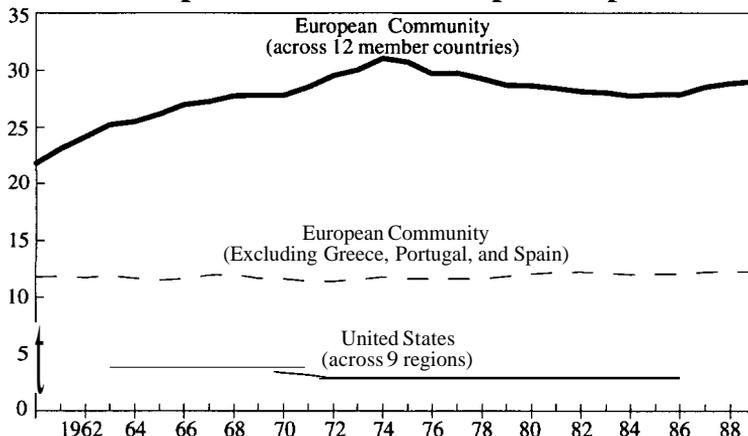
roughly 13 billion ECU).

The case for *gradualism* in the transition to a currency zone is predicated essentially on two propositions: (1) that lack of convergence among members of the zone—encompassing both nominal and real variables—will undermine prospects for sustaining a common monetary policy aimed at price stability; and (2) that a transfer of responsibility for monetary policy from national central banks to a unionwide central bank—without adequate safeguards, or currency competition, or a track record of strong performance—would be premature and could result in only average—rather than **best**—**inflation** performance. Again, it is instructive to illustrate these points by drawing on the European EMU example.

As is well known, the period since 1982 has been marked by an impressive convergence toward lower inflation rates among members of the EMS; nevertheless, among the twelve member countries of the EC, there are still at least three member countries who in 1990 had inflation rates 3 to 14 percent above the EC average and 6 to 17 percent above the best performance in the EC. Divergences among member countries with respect to debt burdens and budget deficits are also large; so, too, with real per capita output and unemployment rates.

One concern about remaining differences in inflation rates is that the high-inflation countries may find the output costs of disinflation—associated with a rapid transition to monetary union—too costly to justify their continued participation (see Crockett [1990]). Over the past four years when nominal exchange rates have been stable in the EMS, France, for example, has been able to keep its growth of unit labor costs roughly in line with those in Germany but Italy has recorded a rather significant loss of **competitiveness**;¹⁵ the **worry** is that the Italian example could be more the rule than the exception for other relatively high-inflation member countries. Implicit here, too, is the notion that the output costs of disinflation could be subject to hysteresis effects that make them closer to permanent than to temporary losses.¹⁶ Yet if the low-inflation countries give in to these concerns, the result could be a compromise, common monetary stance that is too easy on inflation.

Chart 4
Dispersion of Real Per Capita Output¹



¹Coefficients of variation, i.e. standard deviations of real per capita output, scaled by the mean (components are weighted by population).

Chart 4, taken from Masson and Taylor (1991), summarizes the behavior over the past thirty years of the dispersion of per capita output—both among EC countries and among regions of the United States. As noted by Masson and Taylor, three conclusions stand out. First, the dispersion of real per capita output is much larger (on the order of 10 times as large, as measured by the coefficient of variation) in Europe than in the United States. Second, much of the difference in dispersion between the two areas is reduced when the southern tier of the EC (Greece, Portugal, and Spain) is removed from the EC aggregate. And third, there is evidence of a steady (albeit slow) convergence of real per capita income across regions of the United States—a finding that casts doubt on the view that real convergence is impeded by participation in a monetary union.

Uneasiness about handing over the reins for monetary policy to a new and untried institution is partly a reflection of what is being given up in the process. While the Bundesbank is a national rather than a European Community institution, its performance as the nominal anchor of the EMS is by now well established. Moreover, it is well recognized that the output costs of any further disinflation will be

conditioned by the credibility of the monetary authority. While some safeguards can be built into the charter of a new ECB—by giving it a good measure of independence and an explicit mandate to pursue price stability, and by prohibiting it from granting credit to the public sector—it is inevitable that the new institution will take time to establish its own credibility as an inflation fighter; as Mark Twain put it succinctly, "You can build a reputation on what you're going to do." Also, since responsibility for the key decisions on monetary policy would rest solely with the ECB, it would not be subject to discipline from currency competition within Europe (although it would still compete with central banks outside the currency zone); indeed, one rationale of the United Kingdom's "hard ECU proposal is to keep the battle of competing monies going during the transition to EMU, so that the winner can be chosen in the marketplace rather than created by administrative decree and so that a fledgling common monetary institution has a track record before it is given command of the ship.¹⁷

The two-speed or two-track approach to the transition tries to capture the best of both worlds. By restricting the fast track to a smaller, more homogeneous group of countries, it seeks both to minimize convergence problems and to provide proof positive of the benefits of monetary union (including the ability to deliver a low rate of inflation). At the same time, it attempts to keep the momentum toward monetary union going for countries on the slower track, without pressuring them to converge faster than they themselves regard as desirable. The approach has been criticized primarily for the adverse effects it might have on "the countries left behind," and on union solidarity more broadly. More specifically, there are concerns that countries on the slower track would find their credibility impaired, and that even when they were ready to join the others, relationships would have already been formed within the early arrivals that newcomers would find hard to penetrate.

Our own (personal) view is that the two-track approach has a lot to recommend it. While there is no unique level of nominal or real convergence that is necessary for a monetary union or currency zone to be viable, a greater degree of convergence among members surely facilitates operations—especially during the initial phase when the

new monetary institution is just establishing its anti-inflationary credibility and becoming familiar with its new environment. The fast track will likewise permit those countries whose currencies are likely to be the closest substitutes to move quickly through the vulnerable stage (two) where their separate currencies are still subject to speculative attack. We also believe that the only way to test the performance of a new central monetary institution is to give it the mandate to make the key decisions over the conduct of monetary policy, while simultaneously allowing it to face the pressures from sometimes conflicting goals. In contrast, if the new institution has to share responsibility for key aspects of monetary policy with other central banks, or if its mandate is restricted say, to just managing a parallel currency, then the lessons that can be drawn for its fitness to be the single monetary authority over a wider union will be limited. In this sense, the performance of the fast-track central bank is probably the best "dry run" that can be obtained under the circumstances. Finally, we suspect that the incentives for the weaker countries to improve their economic performance (so as to qualify for the fast track) would be stronger under the two-track approach—particularly if the fast-track monetary union shows good results and if the sanctions that can be applied to members (for poor policies) once they are already in the union are relatively mild. But much of this gets us into the subject of the next section, namely, fiscal policy discipline in a currency zone.

Fiscal policy in a currency zone

An underlying theme of the previous section was that monetary policy independence is inconsistent with participation in a currency zone. Much less settled at this stage is what constraints, if any, should be placed on national fiscal policies in a currency union. The debate on this issue, particularly in the European context, is heavily influenced by two observations.

The first one is that the exchange rate regime, itself, has not proven thus far to be sufficient to force a convergence around sound fiscal policies. Summarizing more than a decade's experience with the EMS—during which exchange rate commitments became progressively harder—the Delors Report (1989, paragraph 3) concludes:

“the EMS has not fulfilled its full potential . . . the lack of sufficient convergence of fiscal policies as reflected in large and persistent budget deficits in certain countries has remained a source of tensions and has put a disproportionate burden on monetary policy.”

Table 9 illustrates (for 1990) the large differences among EC countries in ratios of debt-to-GNP. Estimates of the so-called “sustainability gap,” defined as the difference between the actual primary budget surplus and the primary surplus that would be needed to stabilize the debt-to-GNP ratio (assuming average values for both the country's real growth rate and the real interest rate) likewise point to significant differences across EC countries.¹⁸

Table 9*
Debt Ratios in the European Community

	Debt Ratio 1989
	(In percent of GNP)
Belgium	128.4
Denmark	63.5
Germany	43.0
Greece	86.2
Spain	43.8
France	35.5
Ireland	104.9
Italy	98.9
Luxembourg	9.0
Netherlands	78.4
Portugal	73.1
United Kingdom	44.3
EC	58.4

*Taken from EC Commission (1990).

The second observation is that *if* fiscal policy discipline were not forthcoming in a currency zone, then the key objectives of the zone could well be threatened. For example, if a member of the union

accumulated so much debt that it eventually became unable (or unwilling) to service it, there would be (de facto) pressure either on the central monetary institution to monetize the debt or on other members to bail out the errant borrower; alternatively, if that pressure were resisted—and the borrower was not willing to declare default—the country might even threaten to withdraw from the union so as to have the freedom to either monetize the debt or devalue its exchange rate. None of these scenarios is a comfortable one: either the anti-inflationary credibility of the union's central bank would be damaged, or the bailout would impair the future disciplining effect of market forces, or the cohesion of the union would be questioned. Reflecting these concerns, there has, for example, been support for including in any EMU agreement, explicit provisions prohibiting monetary financing and bailing out of budget deficits, as well as an injunction against “excessive deficits” themselves.

In this section, we first review the ways in which formation of a currency zone may affect the incentives to run a disciplined fiscal policy. After that, we discuss three mechanisms for encouraging greater fiscal policy discipline in a currency zone, namely, market forces, fiscal policy rules, and peer-group surveillance.

Incentive effects of a currency zone on fiscal policy

Suppose we characterize the process of moving toward a currency zone as having the following five elements: (1) national control of monetary policy is replaced by a central monetary authority; (2) goods and labor market integration increases (either because measures to promote economic union accompany those to promote monetary union—as in Europe—or because lower exchange rate uncertainty has positive feedback effects); (3) exchange rates become irrevocably fixed; (4) capital markets are liberalized; and (5) solidarity and mutual assistance among union members increases. We can then ask how each of those elements would affect the incentive to engage in errant, discretionary fiscal policy.

Perhaps the main implication of ceding control of monetary policy to a central authority is that each member of the currency zone will then have less assurance that the stance of (the common) monetary

policy will support its intended fiscal policy **action**.¹⁹ *Ceteris paribus*, this decreases the probability that go-it-alone fiscal policy action will be effective. For countries which already have relatively independent central banks, the change from the status quo may be minimal; but for others where monetary policy is under some obligation to support the national government's fiscal policy stance, the change could be one of substance. From the lender's point of view, he has to balance the likely lower probability (with a conservative common central bank) of a surprise inflation or devaluation eroding the real value of his claim, against the higher default probability associated with the borrower's inability to now print money to meet his obligation. In the end, we agree with Mussa (1991) that, on net, the switch to a central monetary authority should discourage fiscal adventurism.

Greater integration of goods and labor markets should also exercise a restraining effect. This is because greater goods market integration implies that more of the effect of a national fiscal stimulus will spill over abroad, and greater labor mobility implies that national authorities who spend and tax more than their neighbors (without providing an offsetting public service in return) risk losing the more mobile elements of their tax base to other jurisdictions. Of course, if some members enter the union with a large debt problem, the reduced scope to raise revenue from taxes, cum the revenue losses associated with reduced seigniorage, could also imply either greater recourse to borrowing or more pressure on the common monetary authority to monetize.

Fixity of exchange rates cuts the other way. More specifically, in a standard, Mundell-Fleming macroeconomic model with full capital mobility, fiscal policy is very effective (at home) under fixed rates and completely ineffective (at home) with flexible exchange rates. Moreover, under the same assumptions, a fiscal expansion with fixed rates has negative transmission effects abroad, while it has positive transmission effects under flexible rates. Put in other words, as we move closer to totally fixed exchange rates, the tendency is for fiscal policy actions to be more bottled up at home, that is, to be more effective. The negative transmission effects abroad come from the depressing effects of higher interest rates and of appreciation of

the common currency against nonunion currencies (which dominate the expansionary effect of higher exports to the initiating country). In this connection, it is relevant to note that simulation studies of the increase in government expenditure in **Germany** associated with German unification generally find negative transmission effects to other EMS **countries**.²⁰ This conclusion about the greater (own) effects of fiscal policy action under fixed rates would be muted if private saving moved so as to **offset** public savings, or if goods market linkages were strong relative to capital market ones; it would be reinforced if the negative transmission effects abroad induced the common monetary authority to ease the stance of monetary policy. In any case, we would regard greater exchange rate fixity, *ceteris paribus*, as encouraging more active use of discretionary, expansionary fiscal policy.

The effect of capital market liberalization is Janus-faced. On the one side, access to a larger pool of saving generally means that a (large) country's fiscal policy expansion will be more effective since it can export some of its "crowding out" to its neighbors. On the other, if a country has privileged access to funds in its own market due to restrictions **that are** lifted upon entry into the currency zone, it could well find that its cost of borrowing has increased.

Last but hardly least, there is the matter of increased solidarity and mutual assistance—especially during episodes of potential financial crisis. Since the operation of a currency zone or monetary union is in a sense the polar case of economic cooperation and coordination, it cannot be ruled out that some members would regard the (potential) availability of financial assistance from other members as permitting a less disciplined fiscal policy course than otherwise—and this notwithstanding any existing "no bailout" pledge. The greater the holding by other members of the debtor's liabilities and the less costly are the conditions perceived by the borrower for a bailout, the more serious is this moral hazard likely to be.

Frankly, it is hard to know what the aggregate effect of these five incentives would be—particularly without reference to a specific group of countries. Nevertheless, if pressed, our gut feeling would be that so long as the central monetary authority is itself disciplined,

the first two incentive effects outlined above would dominate the last three—thus, yielding the conclusion that a currency zone would encourage greater fiscal policy discipline. Even though more fixity of exchange rates makes larger the own effects of fiscal expansion, the negative transmission effects are likely to raise *beggar-thy-neighbor* criticisms from other members of the zone. In addition, the more often an errant borrower goes to the well for a bailout, the more onerous are the conditions for future assistance likely to become. And if, in the end, it is the residents of the errant country that foot the bill, they may take their revenge at the polls.

Mechanisms for enforcing greater fiscal policy discipline

Even if, on balance, the incentives associated with participation in a currency zone were judged as helpful to the cause of fiscal discipline, this is not to say that they would be sufficient to do the job; as noted earlier, this has not been the case so far in the EMS. It is therefore worthwhile to consider somewhat more generally what mechanisms exist for achieving that often elusive objective.

One route would be to entrust private financial markets with that role. Such *market-based financial discipline* would take the form of an initially rising default premium on the debt of a member country running excessive deficits. If those deficits persisted, the default premium would increase at an increasing rate, and eventually the country would be denied access to additional credit. This increase in the cost of borrowing, along with the threat of reduced availability of credit, would then provide the incentive for the country to correct its fiscal situation.

Advocates of the market approach (for example, Bishop and others [1989]) recognize that it will work only if certain conditions are satisfied, namely: (1) capital must be able to move freely, (2) full information must be available on the sovereign borrower, (3) the market must be convinced both that there are no implicit or explicit outside guarantees on sovereign debt and that the borrower's debt will not be monetized, and (4) the financial system must be strong enough to stand the failure of a "large" borrower.

Until very recently, most of the empirical evidence on market discipline has been anecdotal. Skeptics of the market-based approach point, for example, to the developing-country debt crisis of the early 1980s as demonstrating its inadequacy. But a plausible explanation for the slow rise in interest rate spreads on commercial bank loans to indebted developing countries is the perception of a **bailout**—either of the lending banks or of the countries themselves (see Folkerts-Landau [1985])—thus, violating one of the necessary conditions cited above. Similarly, the observation that sovereign borrowers pay different promised interest rates in the market does not establish that these interest rate spreads are closely linked to differences in fiscal-policy behavior rather than to other factors.

Recent empirical work has tended to concentrate on the experience of federal states. The experience of the United States is of particular interest for at least five reasons. First, the viability of the United States as a common currency area is long since firmly established; in operational terms, this means that one can legitimately disregard exchange rate expectations as contributing to differences in borrowing costs across say, U.S. states. Second, state governments do not have access to central bank financing. Third, with regard to creditors, U.S. states enjoy immunity from **bankruptcy** courts, much like a sovereign country does. Fourth, while many U.S. states have voluntarily imposed their own statutory limits on their deficit spending **and/or** borrowing, there are no federally imposed borrowing limits. Fifth, the U.S. capital market is presumably closest to the kind of deep, efficient financial area that some other aspiring currency areas hope to have in the future.

The fly in the ointment for empirical work has been the lack of a reliable data set on market yields for comparable, state, **general-obligation (GO) bonds**.²¹ Recently, however, Goldstein and Woglom (1991) have drawn attention to the Chubb Relative Value Study. The Chubb Corporation, an insurance company, has conducted since 1973 a semiannual survey of twenty to twenty-five (**sell-side**) municipal bond traders. The traders are asked to give the yields on 5-, 10-, and 20-year maturity GO bonds for thirty-nine U.S. states and Puerto Rico, relative to the yield on a comparable New Jersey GO. The survey results for December 1989 are

reproduced in Table 10. The results imply that, on average, traders felt that a comparable California 20-year GO should have a market yield 14.04 basis points below New Jersey's market yield, while a comparable Louisiana 20-year GO should bear a yield 70 basis points higher than that of New Jersey. The spread between comparable California and Louisiana GOs is more than 84 basis points in December 1989. As one would expect, these yield spreads also vary over the course of the business cycle: over time, the spread for a particular state can vary considerably. For example, during the recession year of 1982, the spread between the highest and lowest rated states of Oklahoma and Michigan was more than 170 basis points; in contrast, by 1989, the high-low spread had fallen by a factor of two and Michigan turned out to be a higher-rated state than Oklahoma.

Goldstein and Woglom (1991) employ the Chubb survey data to test the market discipline hypothesis. Specifically, using a pooled sample over the 1982-1990 period, they relate these (state) yield spreads to four measures of fiscal policy behavior that should be related to default risk, as well as to state-specific risk factors (not related to fiscal policy) that are captured in bond ratings. The fiscal policy indicators used as explanatory variables are the existing stock of debt relative to income, the difference between the trade rate of growth of real debt and the trend growth in income, the current year's budget deficit, and an index of the stringency of the state's constitutional debt limitations. Procedures are also undertaken to account for changes in default risk over time, for possible simultaneity between market yields and the volume of state borrowing, and for a possible nonlinearity in the effect of the debt variables on market yields.

Goldstein and Woglom's (1991) main finding is that U.S. states which have followed more prudent fiscal policies are perceived by market participants as having lower default risk and are therefore able to reap the benefit of lower borrowing costs. In this context, more prudent fiscal policies encompass not only a lower stock and trend rate of growth of debt relative to income, but also relatively stringent (albeit, self-imposed) constitutional limitations on the state's borrowing authority. According to Goldstein and Woglom's

Table 10*
Chubb Relative Value Study, December 1989
(Basis point spread for 20 yr. state GO,
relative to a New Jersey 20 yr. GO)

Ranking:	Moody's Rating	Avg. Response	Std. Dev.
1 California	Aaa	-14.04	3.84
2 North Carolina	Aaa	-11.91	4.32
3 Virginia	Aaa	-10.65	4.76
4 Connecticut	Aa1	-9.96	5.09
5 Missouri	Aaa	-8.30	5.28
6 South Carolina	Aaa	-6.74	5.58
7 Georgia	Aaa	-6.39	2.58
8 Maryland	Aaa	-4.65	3.51
9 Tennessee	Aaa	-4.09	5.80
10 New Jersey	Aaa	0.00	0.00
11 Ohio	Aa	1.39	3.41
12 Utah	Aaa	5.57	4.84
13 Maine	Aa1	7.00	4.95
14 Minnesota	Aa	8.13	3.79
15 Montana	Aa	8.39	5.25
16 Delaware	Aa	8.61	4.51
17 Kentucky	Aa	8.70	5.31
18 New Hampshire	Aa1	9.52	3.84
19 Rhode Island	Aa	10.26	3.58
20 Vermont	Aa	11.17	3.56
21 Alabama	Aa	12.09	3.83
22 Wisconsin	Aa	12.13	3.93
23 Pennsylvania	A1	12.91	4.83
24 Mississippi	Aa	13.39	4.49
25 Hawaii	Aa	13.87	3.83
26 Michigan	A1	14.04	4.84
27 New Mexico	Aa	14.48	3.59
28 Illinois	Aaa	14.48	4.67
29 Oregon	A1	16.57	3.59
30 Florida	Aa	17.26	4.11
31 Nevada	Aa	18.74	4.00
32 New York	A1	20.39	4.75
33 Oklahoma	Aa	21.61	7.29
34 Texas	Aa	22.74	5.93
35 North Dakota	Aa	22.83	10.11
36 Washington	A1	24.48	3.05
37 Alaska	Aa	27.39	7.49
38 West Virginia	A1	28.22	5.34
39 Puerto Rico	Baal	48.09	6.99
40 Massachusetts	Baal	62.39	11.50
41 Louisiana	Baal	70.00	12.07

*Taken from Goldstein and Woglom, 1991.

estimates, a (hypothetical) state with fiscal policy characteristics that were one standard deviation "looser" than the mean of the sample would pay roughly 15-20 basis points more on its general obligation debt than another state with fiscal policy characteristics that were one standard deviation "tighter" than the sample mean. In evaluating the size of this fiscal policy-related default premium, one should keep in mind: that there have been *no* defaults on state general obligation bonds in the postwar period—a factor which suggests a low probability of default; and that a default premium of say, 20 basis points is not a trivial expense in relation to a real borrowing cost of say, 2 or 3 percent (or even to a nominal promised yield of say, 6 percent).

Showing that misbehaved fiscal policies raise a country's cost of borrowing is one thing. Showing that an increase in borrowing costs leads, in turn, to a corrective adjustment in fiscal policy is quite another—specially in situations in which high public debts reflect political polarization or distributional conflicts over the sharing of the fiscal burden. On that second half of the market discipline hypothesis, empirical work has unfortunately thus far been silent.

A second possible mechanism for encouraging greater fiscal discipline is binding *fiscal policy rules*. This is, for example, the mechanism favored in the Delors Report (1989). These rules would impose upper limits (relative to GNP) on budget deficits and on debt stocks of individual member countries, as well as limit recourse to public borrowing for purposes of investment. Rules can, in general, reduce negotiation costs and burdensharing conflicts; also, they can enhance the predictability of policy actions. The chief criticism of them in the present context is that rigid fiscal rules would be incapable of taking adequate account of differences in the circumstances of members. For example, the same budget deficit is apt to be less cause for concern in a country with a high private saving rate, a low stock of debt, and a good track record on inflation than in one with the opposite characteristics. Much as with our previous discussion of current account imbalances, there can be good deficits and bad ones. For example, rigid fiscal rules on say, budget deficits, could prevent automatic stabilizers in individual countries in a currency zone from cushioning country-specific shocks. There are

likewise difficult measurement questions. How should "government" be defined, what should be included in the deficit, and on and on. To take a specific example, Delaware looks on the surface to have a relatively high debt burden; yet it carries quite a high credit rating. The reason is that because of its relatively small size, many of the functions that in other states are carried out by local municipalities, are carried out in Delaware by the state government, that is, what is counted as state debt in Delaware is really municipal plus state debt. Markets know this and take it into account in pricing Delaware's debt; but a rigid rule might not be able to accommodate this idiosyncrasy. Enforcement is also a consideration. While some fiscal policy rates will be adhered to, others may not. In this connection, von Hagen (1991) reports a greater tendency for states with debt limits and stringent balanced budget requirements to substitute unrestricted for restricted debt (by delegating functions and debt-raising power to 'off-budget entities and to local governments).

Yet a third mechanism, which finds expression in some recent EC Commission reports (1990a, 1990b), also calls for constraints on national fiscal policies but adopts a more discretionary format. Specifically, it proposes that *peer-group, multilateral surveillance* be reinforced so as to discourage errant fiscal policies of individual member countries. Suffice to say that this tack too is open to criticism. Multilateral surveillance exercises typically employ a broad set of economic indicators. This sets up the risk that different indicators will send conflicting signals for policy adjustment, thereby allowing an errant fiscal policy to continue for too long. Without previously agreed *guidelines*,²² there is also the danger that negotiations, cum pressures for solidarity within the union, could delay unduly the needed fiscal adjustment. Moreover, even though there can clearly be cases when fiscal policy actions create negative externalities for other member countries that are not fully captured in the price mechanism, fiscal policy is much tougher to coordinate than say, monetary policy because of the long lags and sometimes different jurisdictional issues involved.²³

What then to do? Our own view is that efforts would pay the largest dividends if focused in two areas. First, **try** to move closer to the

necessary conditions for market discipline to work **effectively**. This means, *inter alia*: improving information flows on sovereign borrowers; removing as far as possible implicit and explicit guarantees or bailouts; strengthening the financial system so that even a large borrower can occasionally fail; and ensuring that if there is a failure, costs be imposed on both borrowers and lenders so that such behavior is less likely to be repeated in the future. Second, use peer-group surveillance to encourage countries who already have potentially unsustainable fiscal situations to make adjustments—if possible, before they enter currency unions. Once in the union, such peer-group surveillance can continue to play a helpful, supplementary role in **discouraging** obvious, large fiscal policy excesses. If countries see "tying their own hands" on fiscal policy as useful to bolster their credibility in the marketplace—much as many states in the United States have concluded—then they will voluntarily adopt such rules; also, the **rules** themselves are to differ from country to country to reflect each country's own institutional and structural characteristics. **What counts is effectiveness—not symmetry.**

The views expressed are the authors' alone and do not necessarily represent the views of either the Bank of Israel or the International Monetary Fund. This paper was written while Jacob Frenkel was economic counselor and director of research at the IMF. We are grateful to Peter Isard and Paul **Masson** who have worked closely with us over the past few years on many of the issues discussed in this paper. Thanks are also due to **Alberto** Giovannini for helpful comments on an earlier draft.

Endnotes

¹See Tables 6 and 7 in the second section of this paper.

²Frankel (1991)

³This is basically the same definition given for a monetary union in the **Delors** Report (1989). Throughout this paper, we often use the **terms currency** zone and monetary union interchangeably.

⁴Frenkel and Goldstein (1988) and Frenkel, Goldstein, and **Masson** (1989).

⁵Cooper (1991).

⁶Goldstein, Mathieson, and Lane (1991).

⁷Polak (1988).

⁸EC Commission (1990b).

⁹Giavazzi and Spaventa (1990).

¹⁰Masson and Taylor (1991).

¹¹Eichengreen (1990).

¹²Bertola (1989).

¹³Giavazzi and Giovannini (1990).

¹⁴Frenkel and Goldstein (1991).

¹⁵Giovannini (1990)

¹⁶Masson and Taylor (1991).

¹⁷United Kingdom (1989, 1990).

¹⁸EC Commission (1990b).

¹⁹Mussa (1991).

²⁰Masson and Meredith (1990).

²¹General obligation bonds are "full faith and credit" obligations of the state, whereas revenue bonds are only backed by the revenue of the specific project financed by the bond.

²²Frenkel (1990).

²³Tanzi (1989) and Frenkel, Goldstein, and **Masson** (1990).

References

- Atkeson, Andrew, and Tamim Bayoumi. "Do Private Capital Markets Insure Against Risk in a Common Currency Area?" *IMF*, July 1991, unpublished.
- Bertola, Giuseppe. "Factor Mobility, Uncertainty, and Exchange Rate Regimes," in M. de Cecco and A. Giovannini, eds., *A European Central Bank?* Cambridge: Cambridge University Press, 1989.
- Bishop, Graham, Dirk Damrau, and Michelle Miller. "1992 and Beyond: Market Discipline CAN Work in the EC Monetary Union." London: Salomon Brothers, November 1989.
- Bruno, Michael, and Jeffrey Sachs. *Economics of Worldwide Stagflation*, Cambridge, Mass.: National Bureau of Economic Research, 1985.
- Cooper, Richard. "What Future for the International Monetary System?" in Jacob Frenkel and Morris Goldstein (eds.), *International Financial Policy: Essays in Honor of Jacques Polak*, *IMF*, 1991, forthcoming.
- Crockett, Andrew. "Monetary Integration in Europe." in Jacob Frenkel and Morris Goldstein (eds.), *International Financial Policy: Essays in Honor of Jacques Polak*, *IMF*, 1991, forthcoming.
- Delors Report. *Report on Economic and Monetary Union in the European Community*, Committee for the Study of Economic and Monetary Union, June 1989.
- Dornbusch, Rudi. "The European Monetary System, the Dollar, and the Yen," in Francesco Giavazzi, Stefano Micossi, and Marcus Miller (eds), *The European Monetary System*. Cambridge: Cambridge University Press, 1988.
- EC Commission. "Economic and Monetary Union: The Economic Rationale and Design of the System." Brussels: March 1990a.
- _____. *One Market, One Money*. Brussels: October 1990.
- Eichengreen, Barry. "One Money for Europe? Lessons from the U.S. Currency Union," *Economic Policy*, (April 1990), pp. 118-187.
- Folkerts-Landau, David. "The Changing Role of International Bank Lending in Development Finance," *IMF Staff Papers*, (June 1985), pp. 317-363.
- Frankel, Jeffrey. "Is There a Yen Bloc Forming in Pacific Asia?" Washington: Institute for International Economics, 1991, unpublished.
- Frenkel, Jacob A., and Morris Goldstein. "Exchange Rate Volatility and Misalignment: Evaluating Some Proposals for Reform," in *Financial Market Volatility*. Kansas City: Federal Reserve Bank of Kansas City, 1988, pp. 195-220.
- _____, and _____. "Monetary Policy in an Emerging European Economic and Monetary Union," *IMF Staff Papers*, (June 1991), pp. 356-373.
- Frenkel, Jacob, Morris Goldstein, and Paul Masson. "The Rationale for, and Effects of International Economic Policy Coordination," in William Branson, Jacob A. Frenkel, and Morris Goldstein, (eds.) *International Policy Coordination and Exchange Rate Fluctuations*. Chicago: University of Chicago Press and National Bureau of Economic Research, 1990, pp. 9-55.
- _____, _____, and _____. "International Dimensions of Monetary Policy: Coordination versus Autonomy," in *Monetary Policy Issues in the 1990s*. Kansas City: Federal Reserve Bank of Kansas City. 1989a, pp. 183-232.
- _____, _____, and _____. "Simulating the Effects of Some Simple Coordinated Versus Uncoordinated Policy Rules," in Ralph Bryant and others, (eds.) *Macroeconomic Policies in an Interdependent World*. Washington: The Brookings Institution, 1989b, pp. 202-259.
- Goldstein, Morris and Geoffrey Woglom. "Market-Based Fiscal Discipline in Monetary Unions: Evidence from the U.S. Municipal Bond Market," in M. Canzoneri and others, (eds), *Establishing A Central Bank*. Cambridge: Cambridge University Press, 1991, forthcoming.
- Goldstein, Morris. Donald Mathieson, and Tim Lane. *The Determinants and Systemic Consequences of International Capital Flows*, IMF Occasional Paper No. 77, March 1991.
- Goldstein, Morris, and Peter Isard. "Issues in the Evolving Multipolar International Monetary System," *IMF*, July 1991, unpublished.

- Giavazzi, Francesco, and Alberto Giovannini. *Limiting Exchange Rate Flexibility: The European Monetary System*, Cambridge, Mass.: M.I.T. Press, 1989.
- , and Luigi Spaventa. "The 'New' EMS," CEPR Discussion Paper No. 369. London: Centre for Economic Policy Research, January 1990.
- Giovannini, Alberto. "European Monetary Reform: Progress and Prospects," *Brookings Papers on Economic Activity*, 1990:2, pp. 217-274.
- Gros, Daniel, and Niels Thygesen. "Toward Monetary Union in the European Community: Why and How." Brussels: Center for European Policy Studies. May 1990, unpublished.
- Kremers, J. M., and Timothy Lane. "Economic and Monetary Integration and the Aggregate Demand for Money in the EMS," *IMF Staff Papers*, December 1990, pp. 777-805.
- Masson, Paul, and Jacques Melitz. "Fiscal Policy Interdependence in a European Monetary Union," IMF Working Paper No. 90/24, IMF, March 1990.
- , and Guy Meredith. "Domestic and International Macroeconomic Consequences of German Unification," in Leslie Lipschitz and Donough McDonald, (eds.) *German Unification: Economic Issues*, IMF Occasional Paper No. 75, December 1990, pp. 93-114.
- , and Mark Taylor. "Common Currency Areas and Currency Unions: An Analysis of the Issues," IMF Research Department. August 1991, unpublished.
- Mussa, Michael. "Monetary and Fiscal Policy in an Economically Unified Europe." Paper presented at Carnegie-Rochester Conference on Public Policy, Revised. January 1991.
- Mundell, Robert. "A Theory of Optimum Currency Areas," *American Economic Review*, (September 1961), pp. 657-65.
- McKinnon, Ronald. "Optimum Currency Areas," *American Economic Review*, (September 1963), pp. 717-25.
- Padoa-Schioppa, Tommaso. "Toward a New Adjustable Peg?" in C. Fred Bergsten and others, (eds.) *The International Monetary System: The Next 25 Years*. Symposium at Basel University, June 1988a.
- . "The European Monetary System: A Long-Term View," in Francesco Giavazzi, Stefano Micosi, and Marcus Miller (eds.), *The European Monetary System*. Cambridge: Cambridge University Press, 1988b.
- Polak, Jacques. "Economic Policy Objectives in the Major Industrial Countries and their Effects on Policymaking," in Wilfried Guth (ed.) *Economic Policy Coordination*. Washington: IMF and HWWA, 1988.
- Sachs, Jeffrey, and X. Sala-i-Martin. "Federal Fiscal Policy and Optimum Currency Areas." Harvard University, 1989, unpublished.
- Tanzi, Vito. "Fiscal Policy and International Coordination: Current and Future Issues." A Conference on Fiscal Policy, Economic Adjustment, and Financial Markets at Bocconi University, January 1988.
- Tavlas, George, and Yuzuru Ozeki. "The Japanese Yen as an International Currency," IMF Working Paper 91/2, January 1991.
- Taylor, John. "An Econometric Evaluation of International Monetary Policy Rules: Fixed Versus Flexible Exchange Rates." Stanford University, October 1986, mimeo.
- United Kingdom, H.M. Treasury, "An Evolutionary Approach to EMU," 1989.
- . *Treasury Bulletin*, HMSQ 1990.
- Viñals, Jose. "The EMS, Spain, and Macroeconomic Policy," CEPR Discussion Paper No. 389. London: Centre for Economic Policy Research, March 1990.