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**Monetary and Financial Management, Exchange Arrangements,
and the International Financial System**

Problems and Reforms of the International Monetary System

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1. INTRODUCTION

There is a great deal of dissatisfaction with the architecture and functioning of the present international monetary system and this gives rise to persistent calls for reforms. Although these are most insistent during periods of crisis, such as at the time of the collapse of the Bretton Woods System in the early 1970s, the foreign debt problem of LDCs in the early 1980s, and the financial crises in emerging markets since the second half of the 1990s, reforms are demanded even during periods of relative tranquility in international financial markets, such as now. Dissatisfaction with the functioning of the present international monetary system arises because of (1) excessive exchange rate volatility and misalignments among the world's leading currencies (the U.S. dollar, the euro, and the yen), (2) the problem of choosing the appropriate exchange arrangements for the other countries, and (3) the inability to prevent or quickly resolve international financial crises in emerging markets.

In this paper I will first briefly review the architecture and shortcomings in the operation of the present international monetary system. I will then examine the three major problems facing the present international monetary system, and evaluate proposals for possible solutions and suggest some novel ones.

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2. ARCHITECTURE AND OPERATION OF THE PRESENT INTERNATIONAL MONETARY SYSTEM

The present international monetary system has three main characteristics. (1) There are a wide variety of exchange rate arrangements. According to the IMF classification, at the end of 1999, 108 countries had pegged, quasi pegged exchange rate arrangements, or had adopted a leading currency as their domestic currency, 26 countries had managed flexibility, and another 51 countries (including the United States, the 12 countries of the European Monetary System together through the euro, Japan, the United Kingdom, Canada, Australia, Sweden, Switzerland, and Mexico) had practically full flexibility. These add up to 185 countries (three more than the current members of the IMF). Although the majority of countries had fixed or quasi fixed exchange rates, four-fifths of world trade was conducted was conducted by countries had managed of full exchange rate flexibility so that the present system can be regarded more as a flexible than a fixed exchange rate system. (2) Exchange rate variability has been substantial. This is true for nominal and real, bilateral and effective, short-run and long-run exchange rates. The IMF estimated that exchange rate variability has been about 5 times larger during the period of flexible (i.e., since 1971) than under the preceding fixed exchange rate or Bretton Woods System. Exchange rate variability of 2 to 3 percent per day and 20-30 percent per year has been common under the present system. Exchange rate variability has been larger than originally anticipated, does not seem to be declining over time, and is for the most part unexpected. (3) Contrary to earlier expectations, official intervention in foreign exchange markets (and therefore the need for international reserves) has not diminished significantly, in general, under the present flexible exchange rate system as compared with the previous fixed exchange rate system. Nations have intervened in foreign exchange markets not only to smooth out day-to-day movements, but also to resist trends, especially during the 1970s and since the mid-1980s (see *Salvatore*, 1994).

The period of the flexible exchange rate system since 1971 has been characterized by far greater macroeconomic instability in the leading industrial countries than during the previous fixed exchange rate or Bretton Woods period. The system was jolted by two rounds of large oil price increases (1973-4 and 1979-80), which resulted in double-digit inflation and led to recessions (as industrial nations sought to break the inflationary spiral

with very tight monetary policies). The period also saw the rapid growth of the Eurodollar market and the liberalization of capital controls. The resulting sharp increase in international capital flows, as well as the institutional changes and adjustments following the collapse of the Bretton Woods System in 1971, rather than the prevailing flexible exchange rates, were the primary cause of the large macroeconomic instability suffered by the leading industrial countries, however. Indeed, it is now widely agreed that no fixed exchange rate system could have survived the combination of oil shocks, portfolio shifts, and structural and institutional changes that the world faced during the past two decades (see *Kenen*, 1994; *Salvatore*, 1994). It must also be remembered that the present managed exchange rate system was not established deliberately as the result of an international agreement, but was instead forced upon the world by default as the result of the collapse of the Bretton Woods System because of lack of an adequate adjustment mechanism and dollar overvaluation.

3. THE PROBLEM OF EXCESSIVE EXCHANGE RATE VOLATILITY AND MISALIGNMENTS AMONG THE LEADING CURRENCIES

There is little disagreement that exchange rates among the world's leading currencies (as well as among most other currencies that are allowed to fluctuate) have exhibited large volatility since the establishment of the present managed exchange rate system. There is also no question that large *exchange rate volatility*, by adding to transaction costs, has affected the volume and pattern of international trade. These costs, however, are not very large and are not greater than those faced by firms in many other markets, as in the metal and agricultural sectors (*Dell'Ariccia*, 2000). Firms engaged in international trade also seem to have learned how to deal with volatility by pursuing hedging and diversification strategies quickly and at little cost. The *International Monetary Fund* (1984) concluded that exchange rate volatility did not seem to have had a significantly adverse effect on international trade. Measures could, of course, be devised to reduce exchange rate volatility, but the costs of these measures would in all likelihood not justify the benefits resulting from them.

Potentially more damaging to the flow of international trade and investments than excessive exchange rate volatility are the wide and persistent *exchange rate misalignments*.

Misalignment refers to the departure of exchange rates from their long-run, competitive equilibrium levels. An overvalued currency has the effect of an export tax and an import subsidy on the nation and, as such, it reduces the international competitiveness of the nation and distorts the pattern of specialization, trade, and payments. A significant exchange rate misalignment that persists for years could not possibly be hedged away and can impose significant real costs on the economy in the form of unemployment, idle capacity, bankruptcy, and protectionism. The misalignment of a major currency has harmful and potentially disruptive effects not only by the nation (United States and Japan) or region (the Euro Area) issuing the currency but also on the countries that peg their currencies to it (witness the problems that Argentina, which has a currency board with the peso rigidly tied to the dollar, faced during the past three years as a result of the strong dollar and a heavily depreciated real, the currency of Brazil).

The most notorious example of exchange rate misalignment was the overvaluation of the U.S. dollar during the 1980s. According to the Board of Governors of the U.S. Federal Reserve System, from 1980 to its peak in February 1985, the dollar appreciated and was overvalued by about 40 percent on a trade-weighted basis against the currency of 10 largest industrial countries. This meant, for example, that American Caterpillar, the largest producer of large earth-moving equipment in the world, could not compete on the world market and in the United States with its fierce Japanese competitor (Komatsu), even though Caterpillar was estimated at the time to be 25 percent more efficient than Komatsu. The large dollar overvaluation contributed significantly to the development of the huge trade deficit that the United States sustained during those years and to the equally large combined trade surplus of Japan and Germany. It also led to increasing calls for and actual trade protectionism in the United States, as the nation's efficient firms and industries joined the less efficient ones in demanding protection because their inability to compete at home and abroad with their foreign competitors as a result of the overvalued dollar.

It has been estimated (*Council of Economic Advisors*, 1986 and 1987) that the 1985 U.S. trade deficit was \$60 to \$70 billion greater (about twice as large) than it would have been had the dollar remained at its 1980 level, and that this deficit cost the loss of about 2 million jobs in the United States. Despite the fact that by the end of 1988 the international value of the dollar was slightly below its 1980-1981 level (so that all of its overvaluation had

been eliminated), large global trade imbalances remained and did not show signs of declining rapidly. Economists have borrowed the term "hysteresis" from the field of physics to characterize the failure of trade balances to return to their original equilibria once exchange rate misalignments have been corrected. Other major misalignments of the dollar have occurred since the mid-1990s. This is evidenced by the fact that the dollar was worth 84.6 yen in June 1995, 140.3 in June 1998, 106.1 yen in June 2000, and 121.6 in June 2001. Then there is the overvaluation of the dollar with respect to the euro (the currency of the 12 members of the Euro Area) estimated to be between 15-20 percent in summer 2001.

What is important to note, however, is that while misaligned exchange rates can be regarded as the immediate cause of prevailing global trade imbalances, they were themselves the result of internal structural disequilibria in the leading nations. It is these structural disequilibria and not exchange rate misalignments themselves that were and are the fundamental cause of the huge global trade imbalances facing most leading industrial countries today (see Table 1). Specifically, it was the more rapid growth and lower savings rate in the United States than in Japan and Europe during the second half of the 1990s that led to the overvaluation of the dollar and to growing U.S. trade deficits during that period. More rapid growth and very low savings also resulted in huge capital flows from the Euro Area and Japan to the United States, thus turning the United States into the largest debtor nation in the world.

Table 1: Trade Imbalances of the Leading Industrial Countries (in billions of U.S. dollars)

Country	1992	1993	1994	1995	1996	1997	1998	1999	2000
United States	-94.3	-130.7	-164.1	-171.9	-189.4	-194.7	-244.9	-343.3	-447.1
Japan	124.8	139.4	144.2	131.8	83.6	101.6	122.4	123.3	116.7
Germany	28.2	41.2	50.9	65.1	69.4	70.8	78.9	72.0	----
France	2.4	7.5	7.3	11.0	14.9	26.9	24.9	19.4	3.8
United Kingdom	-23.3	-20.0	-16.9	-18.5	-20.2	-19.5	-34.0	-42.4	-43.6
Italy	-0.2	28.9	31.6	38.7	54.1	39.9	36.6	20.4	10.7
Canada	7.4	10.1	14.8	25.9	31.1	17.2	12.8	22.8	36.6

Source: IMF, International Financial Statistics, 2000 Yearbook and June 2001.

What can be blamed squarely on the present international monetary system is that it failed to encourage nations to eliminate their large internal disequilibria and to promote greater coordination of macroeconomic policies among the leading industrial countries. To a large extent this was due to the very different inflation-unemployment tradeoffs of the leading nations. Policy coordination under the present system has taken place only occasionally and has been very limited in scope. One such episode was in 1978 when Germany agreed to serve as "locomotive" to stimulate growth in the world economy. This experiment came to an abrupt end, however, when Germany, fearing a resurgence of inflation, backtracked. Another episode of limited policy coordination was the Plaza Agreement of September 1985, under which the G-5 countries (United States, Japan, Germany, United Kingdom, and France) intervened in foreign exchange markets to induce a gradual depreciation or soft landing of the dollar in eliminating its large overvaluation. Successful international policy coordination can also be credited for greatly limiting the damage from the 1987 world stock market crash and for preventing the 1994-1995 Mexican crisis from spreading to or having a lasting damaging effect on other emerging markets. Instances of international macroeconomic policy coordination were sporadic and rather limited in scope, however.

4. CORRECTING THE MISALIGNED PROBLEM AMONG THE LEADING CURRENCIES INVOLVES ELIMINATING STRUCTURAL IMBALANCES

Since the misalignment problem among the world's leading currencies resulted primarily from the internal structural imbalances in the United States, the Euro Area and Japan, the medium and long-run solution to the problem was to be sought internally. As pointed out above, the most serious problem facing the United States is grossly inadequate domestic savings in the face of rapid domestic growth. The rapid growth of the United States during the second half of the 1990s (and the expectation of its resumption in 2002) is based on the existence of a more flexible economic structure and the more widespread use and adoption of the information technology (the new economy) than in the Euro Area or Japan. This led to huge capital inflows into the United States, an overvalued exchange rate, and huge and growing trade deficits. The medium and long-

run solution to this problem is for the United States to adopt policies to stimulate domestic savings. This is not easy to do because American consumers and firms have become addicted to living with increasing levels of debt and it is difficult to break the habit. An increase in the U.S. savings rate would reduce the need for capital inflows, reduce or eliminate the overvaluation of the dollar and, with it, its huge trade deficit. Since this will take time (years) to achieve and, in any event, the trade deficit responds with a time lag that can be as long as two years or more to exchange rate changes, there is a need for short- to medium-term policies to bridge the gap. These are discussed below.

The problem in Japan is also structural and mostly of an internal nature and thus requires, for the most part, domestic policies to correct. Specifically, Japan has been in a serious financial and economic crisis for the entire past decade. Domestic deflation rather than international disturbances is the primary cause of the large undervaluation of the yen with respect to the dollar and thus of the large trade Japanese trade surplus vis-à-vis the United States. Japan has three possible policies available to overcome its deflationary problem (1) adopt an even stronger expansionary monetary policy, (2) a further depreciation of the yen, (3) a much stronger expansionary fiscal policy than Japan has been willing to adopt during the past decade. With interest rates already zero or nearly zero, however, Japan is in a classic liquidity trap. Firms simply would not borrow and consumers would not spend because of lack of confidence in the future of the Japanese economy. *Paul Krugman* has been advocating flooding the market with liquidity to resolve the deflationary problem in Japan. This could be of help, but no one can be sure and Japan's central bank has not been willing to take this route, thus far, for fear of failure. The second choice for Japan would be to encourage the yen to depreciate further, so as to stimulate domestic growth by a further large expansion of its exports. This, however, would further increase the already huge U.S. trade deficit with Japan – and the United States is simply not willing to accept this. More importantly, since the Japanese problem is mostly of internal origin, the correct policy requires an internal stimulus. That is, to solve its deflationary problem Japan is to have a much larger fiscal stimulus than it had. The reason usually given for the reluctance to do so is that Japan already has a huge government debt (112 percent of GDP – the same as Italy) and, with the most rapidly aging population in the world, Japan is not willing to accept the significant increase in its

already huge national debt that a large fiscal stimulus would entail. But the aging of the population and the size of the national debt are long-term problems and require long-term solutions. The recession in Japan, instead, is here and now and requires immediate action and sacrifices to overcome. It just does not make sense for Japan to continue to procrastinate, as it has done during the past decade, hoping that somehow the crisis will go away by itself if it waits long enough.

For the Euro Area, the situation is different, but even here the chronically weak (and misaligned euro) is primarily the outcome of internal structural disequilibria. The problems in the Euro Area are inadequate and slow restructuring of its economy, especially of its labor market, and its inadequate pursuit of the “new economy”. These kept growth anemic and the rate of unemployment unacceptably high. From 1995 to 1999, the average growth of real GDP was 2.2 percent in the Euro Area as compared with 4.4 percent in the United States and, if growth resumes in the United States in 2002 (as many believe), the Euro Area will have grown more rapidly than the United States only in 2001 during the past five years – but this only because its growth rate fell less than in the United States. The long-term policy for the Euro Area is thus to speed up the restructuring of its economy, liberalize its labor markets more rapidly and encourage a faster adoption and spread of the new ICT (information and communications technology). With more rapid growth at home, there will be less capital outflow to the United States and stronger euro, thus reducing or eliminating the exchange rate misalignment. With its problem mostly structural rather than cyclical in nature, a more expansionary monetary policy (as many advocate) on the part of the European Central Bank (ECB) would provide only a limited stimulus to growth in the Euro Area. Furthermore, with the precise mandate to target only inflation, the statutes of the ECB would have to be changed to permit it to use monetary policy to also pursue the goals of growth and employment (as the Fed does), and this, is by no means easy to do because it requires a change in the Maastricht Treaty itself.

6. INTERNATIONAL POLICY COORDINATION TO CORRECT THE MISALIGNMENT AMONG THE LEADING CURRENCIES

We have seen that since most of the economic problems facing the United States, the Euro Area and Japan are structural and internal rather than cyclical and international in nature, they require, for the most part, domestic policies to resolve. These will take time (years) to adopt and give results, but in the meantime they create international problems (grossly misaligned exchange rates and unsustainable trade imbalances), which then have repercussions and magnify domestic problems. Thus, there is the need for short- and medium-term international policies to bridge the gap. These measures could be greater macroeconomic policy coordination and intervention in foreign exchange markets on the part of the United States, the Euro Area and Japan to steer the exchange rates among their currencies toward their long-run equilibrium level. Of course, we do not know precisely what the equilibrium exchange rates are, but we do have some rough idea (based on purchasing power parity or otherwise). For example, there is some agreement that the dollar is now overvalued by 15-20 percent with respect to both the euro and the yen, and so the United States, the Euro Area and Japan could coordinate their policies and jointly intervene in foreign exchange markets to prod the dollar to move toward rough parity with the euro and the yen.

What is here being proposed is not massive intervention in foreign exchange markets and far less formal and extensive macroeconomic policy coordination than that proposed by the *IMF* (1986a), *McKinnon* (1988), *Bryant* (1995), *Hamada and Kuwai* (1997), *Milner* (1997), and *Mundell* (2000) -- which seem unrealistic to achieve under present conditions (for reasons indicated below). Under *McKinnon's* proposal, the United States, Germany (now the Euro Area) and Japan would fix the exchange rate among their currencies at their equilibrium level (determined by purchasing-power parity) and then closely coordinate their monetary policies to keep exchange rates fixed. A tendency for the dollar to appreciate vis-a-vis the yen would signal that the United States should increase the growth rate of its money supply, while Japan should reduce it. The net overall increase in the money supply of the United States, the Euro Area and Japan would then be expanded at a rate consistent with the non-inflationary expansion of the world economy. *Mundell* goes even further and envisions that, with an even greater inflation convergence than has

occurred during the past decade, a monetary union among the dollar, euro, and yen areas (and eventually a single world currency – see also Cooper, 1984) is possible and would represent an optimal arrangement from the world's point of view. *Rogoff* (2001) disagrees that a single world currency would be optimal. But even if a monetary union among the United States, the Euro Area and Japan would represent an optimal arrangement, it is very unlikely that this could take place in the foreseeable future, and so the comments that follow refer to only to *McKinnon*'s proposal.

This type of close macroeconomic policy coordination proposed by *McKinnon* is virtually impossible under present conditions. For example, during the 1980s and early 1990s, the United States seemed unable or unwilling to reduce its huge budget deficit substantially and rapidly, Germany has been unwilling to stimulate its economy adequately even though it faced a high rate of unemployment of its labor force, and Japan has been very reluctant to use sufficiently expansionary fiscal policies to stimulate its economy and dismantle its protectionistic policies to allow much more imports from the United States, so as to help correct their huge trade bilateral imbalance. As long as the United States, the Euro Area and Japan have different *inflation-unemployment tradeoffs*, effective and substantial macroeconomic policy coordination among them is practically impossible. In fact, the United States, the Euro Area and Japan consider the ability to choose different inflation-unemployment tradeoffs to be an important advantage of the present international monetary system over the previous Bretton Woods system.

There are also other more practical obstacles to successful and effective international macroeconomic policy coordination. One is the lack of consensus about the functioning of the international monetary system. For example, the Fed may believe that a monetary expansion would lead to an expansion of output and employment, while the ECB may believe that it will result primarily in inflation. Another obstacle arises from the lack of agreement on the precise policy mix required. This results from the fact that different macro-econometric models give widely different results as to the effect of a given fiscal expansion. There is then the problem of how to distribute the gains from successful policy coordination among the participants and how to spread the cost of negotiating and policing agreements. Empirical research reported by *Frankel and Rockett* (1988), *Frenkel, Goldstein, and Masson* (1991) and *McKibbin* (1997) indicate that

nations gain from international policy coordination about three-quarters of the time but that the welfare gains from coordination, when they occur, are not very large. It is possible, however, that the empirical studies conducted thus far have not captured the full benefits from successful international policy coordination.

While formal and extensive macroeconomic policy coordination is practically impossible among the United States, the Euro Area and Japan, some informal and weaker form of macroeconomic policy coordination, together with coordinated periodic (as required) intervention in foreign exchange markets is not only possible but has already been used in 1985 to lead to a soft landing of the dollar with the Plaza Agreement, in 1987 to prevent the collapse of the stock markets from leading to a large world-wide economic slowdown, and in 1995 to prevent the spreading of the Mexican crisis to other emerging markets. The foreign exchange market intervention in favor of the euro in fall 2000 was not successful because it was very weak, it was undertaken half-heartedly, and it was not backed by any strong statement on the part of the participating leading Central Banks on their strong commitment to support the euro.

In conclusion, the large exchange rate misalignment among the dollar, the euro and the yen is primarily the result of internal structural disequilibria in the United States, the Euro Area, and Japan and require primarily domestic policies to be overcome. A properly functioning international monetary system should be able to pressure the leading nations (for example, through the IMF's annual review of their economies) to correct structural disequilibria as soon as possible and at the same time coordinate foreign exchange interventions and macroeconomic policies coordination sufficiently and as required to overcome the short- and medium-run problems created by large currency misalignments, thus avoiding distortions in the pattern of specialization and trade and protectionism. Benign neglect, simply will not do and the adoption of a single world currency is utopian at this time.

7. CHOICE OF EXCHANGE RAGIMES FOR OTHER COUNTRIES: DOLLARIZATION, EUROIZATION, AND CURRENCY BOARDS

We have seen above that under the present international monetary system countries have almost complete freedom to choose the exchange rate regimes that they wish and that they have, indeed, taken advantage of this freedom and have adopted a wide variety of exchange rate arrangements, ranging from unilateral dollarization or euroization, currency boards, pegged exchange rates, crawling pegs, and so on, all the way to freely, or nearly freely flexible exchange rates. The important question, which arises is what is the best exchange rate system for a particular nation. This is a crucial choice because many of the international financial crises that have occurred during the past decade in industrial countries and emerging markets have been attributed, wholly or in part, to the type of exchange rate arrangements chosen by the nation.

At one extreme is the unilateral adoption of a leading currency as the nation's domestic currency (i.e., full dollarization or euroization), as for example, Panama has done with the U.S. dollar since 1904. As can be expected, dollarization or euroization confers major benefits to the nation adopting it. It lowers transaction costs, the inflation rate and the interest rates, and leads to greater openness, transparency and international financial integration for the nation adopting it. But, it also leads to a loss of seigniorage, independence of monetary and exchange rate policies, and, often, also the lender of last resort.

A good candidate for dollarization or euroization is a small open economy for which the United States or the Euro Area is the dominant economic partner and which has a history of poor monetary performance, and hence poor economic-policy credibility. The ability of such a country to conduct an independent monetary and exchange rate policy to address domestic real and monetary shocks is only imaginary. At the same time, such a country is very likely to face much higher interest rates (to compensate for the higher country risk that it exhibits) than the one that prevails in the United States or the Euro Area and is very vulnerable to speculative attacks (unless it insulates itself from the world economy – but this would severely reduce its growth rate).

Most of the small countries of Latin America, especially those in Central America, as well as the Caribbean, fit this description very well and are, therefore, the best candidates for full dollarization. In fact, Panama, Ecuador, El Salvador and

Guatemala are already dollarized, and Honduras, Nicaragua, and Costa Rica are seriously considering it. Similarly, in Europe, many of the former communist countries of Central and Eastern Europe in line to be admitted to the Euro Area are considering euroizing before their admission. Once we move from small to large countries, however, it becomes more difficult to come up with clear-cut answers as to whether or not it would be beneficial for the country to dollarize, euroize, adopt a currency board, or simply peg its currency.

Argentina has had a currency board since 1991 and this operated reasonably well until 1999 when Brazil was forced first to devalue and then to allow the real to sharply depreciate. With the peso rigidly tied to the dollar, Argentina suffered a huge loss of international competitiveness vis-avis Brazil (its largest trade partner) and plunged into recession that still prevails (July 2001). Tightening up its public finances in order to encourage foreign investments only deepened the recession without succeeding in attracting many more foreign investors because of their fear that Argentina may abandon its currency board and devalue the peso. This prompted President Mennen at the beginning of 1999 to suggest that Argentina move toward full dollarization. While this would have eliminated the foreign exchange risk and very likely it would have attracted more foreign investments and thus encourage growth, it would not have eliminated the international competitiveness problem that Argentina has with respect to Brazil. The ideal situation would be if Brazil also dollarized, but this, for a country such as Brazil that considers itself to be the leader of South America, seems to be entirely out of the question in the near future for reasons of national pride. It is inconceivable that Brazil would give up its central bank and its currency without having a strong say in the conduct of the dollar-area monetary policy – something that Greenspan and Summers (the departed Secretary of the Treasury) clearly indicated that the United States was not about to do in the foreseeable future. In short, a monetary policy a-la-European Union is not even being considered by the United States. It also makes little economic sense for Brazil to dollarize in view of its very different economic structure with respect to the United States. In spring 2001, Cavallo, upon returning to be Argentina's Minister of Finance, pegged the peso to both the dollar and the euro. Because of the weak euro, this can be considered a

devaluation of the peso, but the situation in Argentina remains very critical and a complete economic collapse cannot be ruled out.

Abandoning its currency board and depreciating its currency, however, could return Argentina to the hyperinflation of the past. Adopting Brazil's currency would expose Argentina to many of the monetary and financial problems that Brazil faces. The alternative for Argentina is full dollarization. The elimination of the foreign exchange risk (that financial markets believe to exist because of the possibility that Argentina could abandon its currency board) would lower interest rates and attract enough foreign capital, and this could not only overcome the recession but also to improve Argentina's international competitiveness and stimulate its growth. The United States, for its part, could facilitate the official dollarization of Argentina by sharing its signorage with Argentina (as is done in the euro-area) from the use of the dollar in Argentina. Of course, Argentina would also want access for its banks to the discount window at the Federal Reserve System in time of crisis, cooperation on banking supervision, and possibly a seat at the Federal Reserve Board – things that the United States (as indicated above) has made clear that it would not do. The optimal or first best situation, of course, would be if Argentina were able to manage its own economy efficiently and with discipline. Short of this, however, full dollarization seems its only possible way out of its difficult predicament.

More sense and more feasible than dollarization of Brazil would be the dollarization of Mexico because Mexico is much more integrated with the U.S. economy and faces less (but by no means insignificant) political problems in dollarizing than Brazil. But even here, one can point to Canada, whose economy is much more integrated with the U.S. economy than Mexico's and which also has a currency that for the most part fluctuates freely vis-avis the U.S. dollar and other currencies and which, nevertheless, has been and is doing very well economically. The question is then why should Canada, and hence Mexico, dollarize?

While the topic is being discussed, Canada regards dollarization as neither necessary nor desirable. Pursuing this matter further, we then need to ask why is Canada doing so well economically without dollarization? The answer is clear. It is because Canada is highly integrated both financially and economically in the global economy and

pursues sound economic policies. If Mexico could become as highly integrated in the world economy and if it were able to follow as sound economic policies as Canada, then dollarization make much less sense for Mexico also. In general, dollarization would make sense for Mexico if it would (1) speed up Mexico's integration into the world economy (2) encourage Mexico to follow better economic policies and, (3) if, in the final analysis, it would significantly stimulate economic growth in Mexico. But clearly, these are questions, not answers.

Furthermore, when questions are asked as to why North America or all of the Americas shouldn't have a common currency if Europe can and does, the answer is that Europe created a European Central Bank and all participating nations have a voice in the making of the common monetary policy, they all share in the seigniorage from the euro, and its aims are full monetary, economic and political integration. None of these things are true for the Americas or even for North America. Thus, aside for the small open economies of Central America, the case for dollarization for North America or for all of the Americas can only be justified with an optimum-currency-area type analysis or from the economic discipline that it would impose on countries that are unable to effectively and efficiently manage their economy. Since the United States is not ready to open its borders (particularly its southern border) to migrants and establish a common central bank, the American continent – not even North America – fulfills the requirements for an optimum-currency area and could not possibly function as such. Thus, Canada, Mexico, Argentina and other countries in the American continent must decide whether full *unilateral* dollarization makes economic and political sense for them. For Argentina and Mexico it may make sense, for Canada and Brazil it may not. The same general type of analysis is valid for euroization. In his recent article, *Dornbusch* (2001) seems much more positively disposed toward dollarization and euroization than the above analysis seems to justify.

8. OTHER EXCHANGE ARRANGEMENTS

If not dollarization, euroization or currency boards, what alternative exchange arrangements could other countries choose? One possibility is for a nation to simply peg its currency to the dollar, the euro or other leading currency. Under such a system, a nation would define the par value (exchange rate) of its currency and the (small) allowed band of fluctuation about the par value, and stand ready to buy or sell its currency on the foreign exchange market (by drawing down or accumulating its reserves of other currencies) in order to prevent the exchange rate from moving outside the allowed band of fluctuation. A trade deficit would be financed by a loss of international reserves, while a trade surplus would be settled by an increase in the nation's international reserves. Under such a system, a nation with a balance of payments deficit would have to reduce its money supply (or increase it at a slower rate than the surplus nation) so that prices would fall in the deficit nation relative to the surplus nation until trade imbalances are corrected. The great disadvantage of this is that the nations would have to give up control of its money supply, and, this, the nation may not be willing to accept. Furthermore, the nation would very likely face very damaging destabilizing speculation as soon as any doubt arose about its willingness or ability to defend the fixed peg. For this reason, the usual recommendation made today is that if the nation prefers pegged rates, it would be better for it to establish a currency board, dollarize or euroize.

At the opposite extreme of pegged rates is, of course, freely flexible exchange rates. With freely flexible exchange rates, a nation's exchange rate is determined by the unrestricted operation of the market forces of demand and supply for foreign exchange. This would, for the most part, insulate a nation from economic disturbances arising abroad and allow the nation to use monetary policy (i.e., change its money supply) to pursue domestic goals without much regard for balance of payments considerations. A balance of payments deficit would be corrected automatically by a depreciation of the nation's currency, while a surplus would be corrected by an appreciation. As we have seen, the disadvantage of freely flexible exchange rates is that, in a world of highly integrated capital markets and huge and rapid international capital flows in response to even minor changes in economic variables and "news", exchange rates are likely to be very volatile, subject to over-shooting, and possibly drift away from equilibrium by

substantial amounts and for long periods of time. This seriously distorts the pattern for international specialization and trade. Freed from the obligation to maintain fixed exchange rates, central banks might also embark on inflationary policies so that the monetary discipline (the so-called "anchor" argument) of fixed exchange rates would be lost. Because of these serious shortcomings, there is not much support and few, if any, countries (besides the leading countries) prefer opting for truly flexible rates.

What may seem a more realistic possibility for a nation to reduce excessive exchange rate volatility and avoid large exchange rate misalignments is the establishment of target zones, as proposed by *Williamson* (1986). Under such a system, a nation would estimate the equilibrium exchange rate of its currency and decide on the range of allowed fluctuation. *Williamson* suggested a band of allowed fluctuation of 10 percent above and below the equilibrium exchange rate. The exchange rate would be determined by the forces of demand and supply within the allowed band of fluctuation and prevented from moving outside the target zones by official intervention in foreign exchange markets. The target zones would be soft, however, and would be changed when the underlying equilibrium exchange rate moves outside of or near the boundaries of the target zone. Critics of target zones, however, believe that target zones embody the worst characteristics of fixed and flexible exchange rates. As in the case of flexible rates, target zones allow substantial fluctuation and volatility in exchange rates and can be inflationary. As in the case of fixed exchange rates, target zones can only be defended by official interventions in foreign exchange markets and thus reduce the monetary autonomy of the nation. Indeed, the only relatively recent experience with target zones is the implicit one set up by the Louvre Accord in February 1987 for the dollar, the yen and the Deutsche mark, and which was abandoned in the early 1990s in the face of strong market pressure which saw the dollar depreciating heavily with respect to the mark and the yen.

Still another possibility would be for a nation to restrict international speculative capital flows into and out of the nation. This proposal is based on the premise that huge international capital flows in today's highly integrated international capital markets are the primary cause of exchange rate instability and global imbalances afflicting many nations. *Tobin* (1978, 1996) proposed accomplishing this with a flat transaction tax on international financial capital flows, which, therefore, becomes progressively higher the shorter the

duration of the transaction, in order "to put some sand in the wheels of international finance." *Dornbusch* and *Frankel* (1987) would instead have reduced financial capital flows internationally with dual exchange rates -- a less flexible one for trade transactions and a more flexible one for purely financial transactions not related to international trade and investments. By restricting international "hot" money flows through capital market segmentation or the decoupling of asset markets, *Tobin*, *Dornbusch* and *Frankel* believe that the international financial arrangements of a nation would operate much more smoothly. Critics of these proposals, however, point out that it is next to impossible to separate "nonproductive" or speculative capital flows from "productive" or non-speculative ones related to international trade and investments (*Dornbusch* and *Frankel* have in fact since moved away from their proposal). We might add that capital is fungible, so that evasion of such a transaction tax or more volatile exchange rates would greatly limit these efforts. Chile, among developing nations, has experimented with restricting speculative capital flows throughout most of the 1990s, but there are some questions as to how successful such a policy was (see, *Edwards*, 2000).

So what is the best exchange rate arrangement by countries that are not good candidates for dollarization, euroization or a currency board? In a world of huge international capital flows, such as we have today, fixed exchange rates could probably not survive without extensive controls on international capital flows and, in any event, the nation may not be willing to give up control over its money supply and be unable to conduct monetary policies to achieve domestic goals for the sake of external balance. At the same time, most nations are aware that exchange rates have been far too volatile and have overshot by substantial degrees and for long periods of time their equilibrium levels, and so a pure or freely flexible exchange rate system also seems unacceptable. Finally, target zones, by themselves, are also not likely to work because, as we have seen, they attack the symptoms rather than the underlying causes of exchange rate misalignments.

Where does that leave us? What is the best exchange rate arrangement for a particular nation? It seems to me that the best that a nation can do is to adopt a hybrid system, not too dissimilar from what many nations have today, under which the nation would allow the various exchange rate adjustment mechanisms to operate by different degrees depending on its specific circumstances under which it operates and the major goals that the

nation sets for itself to achieve. Specifically, excessive volatility and gross misalignments can be overcome by the nation deciding on some rough equilibrium exchange rate for its currency and then intervening in foreign exchange markets, adjusting the growth of its money supply, and responding to calls for policy coordination based on its circumstances, the domestic targets that it sets for itself, and the relative importance of these domestic targets, so as to keep its exchange rates at or near equilibrium. That is, the nation could allow several of the mechanisms of adjustment to operate in various degrees to suit its own specific condition and preferences. A large nation facing a large external deficit will want to stress devaluation its currency or allowing it to depreciate rather than restrict domestic demand. Another large nation facing an internal disturbance (such as Brazil) would want to place a greater share of the adjustment burden on internal (especially fiscal) policies to correct the internal imbalance rather than on exchange rate changes. Smaller and more specialized economies may also opt for smaller exchange rate flexibility and greater reliance on internal expenditure-changing policies than larger open economies to achieve balance of payments adjustment. Small nations may also be encouraged to join established economic blocks or form one of their own.

Rather than a shortcoming, such a hybrid system of managed exchange rates around broadly defined equilibrium exchange rates, by providing the freedom for each nation to determine how much it will rely on the various mechanisms of adjustment, is a crucial advantage of the international financial system being proposed. The broad outline of such a system is already in place today and, while its operation can certainly be strengthened by striving for regular consultations and for as much policy coordination as is feasible under various circumstances with the leading nations, no other system seems to be better able to deal with the international monetary problems faced by most nations today. Excessive exchange rate volatility and misalignments can be addressed, to a large extent, by defining some loose reference limits within which the nations will strive to maintain its exchange rate by a combination of changes in the growth of the nation's money supply, intervention in foreign exchange markets and whatever policy coordination is possible in order to keep exchange rates relatively stable at or near their equilibrium level. The inherent inflationary tendency that the nation may face under such

a hybrid sysatem can be curbed by anchoring the international value of the nation's currency to that of the dollar, the euro or the yen.

What is being proposed here is different from what many leading economists have been advocating. *Robert Mundell* would prefer a return to a fixed exchange rate system, *Milton Friedman* freely flexible exchange rates, *John Williamson target zones*, *McKinnon* a system based on deep international macroeconomic policy coordination among the leading countries, *Tobin* a system based on controls on destabilizing international capital flows, and *Cooper* and *Mundell* a single world currency. Indeed, many have called the present exchange rate arrangements, whereby each nation chooses its own specific arrangement to follow, a “non-system”, perhaps because it is not a pure or clear-cut system. But this does not make sense. The flexibility of the present system (with the improvements suggested above and those examined in the next section) relying, as it does, on various means of adjustment, is in fact its strength, not its weakness. No other system seems feasible today. Thus, the best exchange rate arrangement for many nations today would very likely involve improving on the functioning of the present system rather than replacing it with a more “pure” system, as some advocate. Recently, *Frankel* (1999) came to the conclusion that “no single currency regime is right for all countries at all times”. But this means each country adopting *a particular exchange rate system*, rather than taking a system-wide approach by allowing the various systems to operate simultaneously in various degrees in order for the nation to minimize the costs of external adjustment that is being proposed here (and which has long been advocated by the present author – see Salvatore, 1989, 1994 and 1995).

8. INTERNATIONAL FINANCIAL CRISES AND THE ARCHITECTURE OF THE FUTURE INTERNATIONAL MONETARY SYSTEM

The third serious problem facing the present international monetary system is its seeming inability to prevent international financial crises, especially in emerging markets. There have been six such crises since the mid-1990s: Mexico in 1994-5, South-East Asia in 1997-1999, Russia in summer 1998, Brazil in 1999, Argentina in 1999-2001 and Turkey in 2001. Although the fundamental problem that led to these crises was different, the process was very similar. Each crisis started as a result of a massive withdrawal of

short-term liquid funds at the first sign of financial weakness in the nation. Foreign investors poured funds into many emerging markets during the early 1990s after these nations liberalized their capital markets in order to take advantage of high returns and in order to diversify their portfolio, but immediately withdrew their funds on a massive scale at the first sign of economic trouble in the nation -- thereby precipitating the crisis. The danger for the international monetary system is that such crises could spread to the rest of the world, including industrial countries (*Salvatore*, 1999).

A number of measures have been proposed and some steps have already been taken to avoid or minimize such crises in the future and thus greatly strengthen the *architecture of the present international monetary* and improve its functioning. These include: (1) increasing transparency in international monetary relations, (2) strengthening banking and financial systems, (3) promoting greater private sector involvement, and (4) providing adequate financial resources to emerging markets to prevent them from being affected by financial crises elsewhere (i.e., to avoid contagion -- see *IMF* 1996abc, *IMF* 1998; *IMF*, 1999; *Task Force Report*, 1999; *Eichengreen*, 1999; *Salvatore*, 2000; *IMF*, 2000abc).

Increased transparency is essential because markets cannot work efficiently without adequate, reliable, and timely information. To this end, the IMF established the *Special Data Dissemination Standards (SDDS)* in 1996, which have already been accepted by about one-quarter of the membership. These *early-warning financial indicators*, such as the budget and current account deficit, long-term and short-term foreign debts, and international reserves as percentages of GDP could signal which emerging country or countries might be heading for trouble. The hope is that foreign investors would take note of the potential problem and avoid pouring excessive funds into the nation or nations, thus possibly avoiding a crisis. The SDDS has since been supplemented by the *Dissemination Standard Bulletin Board (DSBB)*, which is an electronic site on the Internet that provides information concerning countries' economic and financial data systems with more than 40 subscribers, including Hong Kong and China. The IMF is also proposing to set up a clearing house to keep track of all the loans and liquid investments made by foreign banks and other financial institutions in emerging markets. Lack of this information has led to excessive loans and other liquid investments in emerging markets in the past, which eventually led to crisis. For this purpose, the IMF set up in March 1999 the *Financial Stability Forum (FSF)*. In May 1999, the IMF and the World

Bank jointly set up the *Financial Sector Assessment Program (FSAP)* and the related *Financial System Stability Assessments (FSSAs)* to identify financial system strengths and vulnerabilities so as to help develop appropriate policy responses, and in September 1999 it renamed the *IMF Interim Committee* as the *International Monetary and Financial Committee (IMFC)*.

The second way of improving the architecture of the present international monetary system is by strengthening emerging markets' banking and financial systems. Weakness in banking systems were common to all emerging markets that were involved in financial crises during the past five years. A weak banking and financial system invites a financial crisis and guarantees its severity. The banking and financial system can be strengthened by improving supervision and prudential standards, and making sure that banks meet capital requirements, make adequate provisions for bad loans, and publish relevant and timely information on their loan activity. It is also important to deal with insolvent institutions promptly and effectively. Implementing these policies are difficult, especially when nation's banking and financial system is already in trouble, but a sound financial system is essential for the health and growth of the entire economy. The IMF has been formulating standards or codes of good practice in accounting, auditing, corporate governance, payments and settlements systems, insurance, and banking based on internationally accepted Basle Core Principles (some of these are already being implemented as part of the IMF surveillance function).

The third way of strengthening the present international monetary system is to get much greater involvement of the private sector in sharing the burden of resolving a financial crisis in emerging markets by rolling over and renegotiating loans or providing new money rather than rushing for the exit, as a precondition for IMF official assistance. The logic is that lenders should be compelled to take some responsibility for the crisis by having lent too much short-term funds to an emerging market for non-productive purposes. That is, lenders should be "bailed in" rather than be allowed to bail out and rush for the exit door. This is exactly what happened on January 28, 1998 when the IMF and rich-countries' government put strong pressure on international banks to reschedule \$24 billion of Korean debt with a plan to replace bank loans with sovereign-guaranteed bonds. A similar strategy was taken in Brazil in early 1999. This, however, was relatively easy to do

in Korea and Brazil because the problem there was primarily a liquidity crisis rather than a much more serious structural problem (which would have raised serious doubts whether lenders would ever be repaid or even receive service payments). The legal framework to compel creditors to accept a Chapter 11-type of arrangement, as it exists in the United States today, does not exist on a global scale and it is not likely to be established soon. A formal change in the wording of bond contracts is also a long way off. Lenders would either charge much higher interest rates to compensate them for the higher risk or avoid lending to an emerging market economy altogether. Yet, the notion of moving toward some kind of debt-restructuring system is getting a lot of attention at the IMF, the World Bank, and the Bank for International Settlements (BIS). The United States, the European Union and Japan have also been grappling with this issue at recent G-7 or G-8 Meetings. Of course, it should not be easy for an emerging market economy in financial difficulty to unilaterally declare bankruptcy (so as to avoid the problem of moral hazard), but some way of bailing in lenders is clearly necessary to resolve a financial crisis, when one does erupt. In those situations, it should be the IMF to certify when an emerging market is sufficiently in trouble to trigger the restructuring mechanism.

One reform that the IMF has already introduced in April 1999 is the *Contingency Credit Line (CCL)* to provide strong financial backing to an emerging market before it faces a financial crisis, if there is a danger that it might be dragged into one for no fault of its own. For example, it often happens that international investors are unable to make a distinction among emerging markets and withdraw funds from all of them when only one or a few of them face a crisis. Thus, when the crisis erupted in Russia in the summer of 1998, international investors withdrew funds also from South-East Asia and Latin America even though conditions were very different in those markets. In order to have the financial resources to implement its plan to provide large financial assistance to an emerging market that is in danger of being engulfed by a financial crisis elsewhere, the IMF also negotiated the doubling (to \$46 billion) of the amount that it could borrow under the (New) General Arrangement to Borrow and an increase in the total resources at its disposal to \$28 billion. *The Contingency Credit Line (CCL)*, however, is yet to be used.

In the final analysis, it must be realized, however, that even if all the reforms being considered were adopted, they would not eliminate all future financial crises. All

that we can hope is that these reforms would reduce the frequency and severity of financial crisis in the future. In short, some international financial instability and crises may be the inevitable result of liberalized financial markets and the cost that we have to pay in return for the benefits that liberalized financial markets provide to industrial and emerging market economies alike.

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