

Some considerations on reform of the international monetary and financial system

ENZO GRILLI

1. The problem of reform and its antecedents

Reform of the world monetary system is again at the center of attention and debate, albeit in different forms and under different guises. It has been brought back to the center of the stage by the numerous currency crises rocking the system in the 1990s, beginning with the Exchange Rate Mechanism (ERM) episode of 1992-93, followed by the Mexican crisis of 1994-95, the Asian crises of 1997-98 and the latest currency turmoil in Russia and Brazil. If these were the proximate reasons for the renewed attention given to this problem, its historical antecedents are much older, dating back at least to the 1960s, when the first serious cracks in the system established at Bretton Woods began to surface. The urgency of reform became even stronger in the early 1970s, but the events that led to the collapse of the fixed exchange regime in 1973, as usual in similar circumstances, overtook all ongoing efforts at changing it from within. Freedom of choice on exchange rates became first a necessity, then the systemic rule.

The nature of the reform problem has also changed considerably during the past two decades. New dimensions were added to it by the resurgence of private capital movements on a world basis, the liberalization of many national financial systems underlying it, and the development of an international finance that was rapidly becoming global in scale, renewed in its instruments, and propelled by an ever growing number and variety of actors and instruments.

□ Johns Hopkins University, Paul Nitze School of International Studies, Bologna (Italy).

With the consolidation of these tendencies and extension of the reach of private finance from (old) established to (new) emerging markets, interactions between the international monetary system (IMS) and the international financial system (IFS) have become both wider and closer, and the boundaries between the two less marked and relevant than probably ever before. Currency considerations have affected money flows and money flows have determined more and more of the currency movements that occurred. Growing financial market integration and the widely-held presumption that this trend is bound to continue have made the problem of reform a twofold one, affecting both the global currency and money systems.

Currency and financial crises, we must recall, have been a persistent trait of the international economy. They have occurred with regularity starting at least from the 16th century (Kindleberger 1996) and – according to their location, dimensions and context – have exerted local, regional and global effects. One must wonder, therefore, if we may not be overestimating the significance of the most recent ones. Yet, their frequency, dispersion and the reach of their external effects seem to mark them out significantly. To some, these characteristics also signal increasing instability in global finance and the growing costs of market failures. If verified, both would be disquieting aspects.

Moreover, what appears to many as a reality of international financial contagion is putting a damper on the enthusiasm for financial integration, globalization and liberalization. The recent crises have shaken many beliefs, and forced some painful reappraisal of the ongoing trends, the process extending to existing regimes, systemic rules, national and global institutions. The notion that institutional weaknesses might have played a role in the recent crises has gained considerable currency.

When existing monetary and financial arrangements appear to be malfunctioning it is natural to ask if they may not be in need of change. Crises always help in directing attention to these needs. But they also tend to focus attention, public and private, on newly arisen concerns, and also on short term aspects, while at the same time generating an inevitable demand for symbolic actions, for signals aimed at reassuring shaken markets and at restoring confidence in them or towards them. Generally, many of these crisis-specific demands have more to do with the symptoms, or the pathologies, of the crises than with their primary causes.

The first episode of currency turbulence of the 1990s, the crisis that affected the European exchange rate mechanism, although it extended to Sweden and Finland, which did not belong to the ERM, was not attributed with systemic relevance by most observers. Since its effects outside Europe were quite limited, the natural tendency was to interpret it – at least at the official level – as a problem of the malfunctioning of a regional system of quasi-fixed exchange rates in the presence of insufficient compatibility in the monetary and fiscal policies of its members. The economic profession generally stressed the limited credibility of the EMS.¹ Creating credibility eventually became a major goal of policy action. Better coordination of policies, especially fiscal, among members was sought. Convergence criteria were tightened, and directed at building market credence for the entire system (BIS 1993). Yet, no clear systemic implication was derived from the crisis, despite the fact that its basic causes were not significantly different from those that had earlier determined the failure of the Bretton Woods regime of fixed exchange rates: inconsistency between national macroeconomic goals and an excessively limited flexibility of exchange rates, aggravated in the circumstances of the early 1990s by the greater freedom of capital movements that had emerged.²

The second major episode of the 1990s was the Mexican crisis, which began as a classic currency crisis at the end of 1994 – the result of a devaluation of the peso which markets found insufficient and not credible – and soon became a banking crisis, too. With the vast repercussions it had throughout Latin America, it brought the attention of the international community to focus on the need to prevent such events, and to limit the associated contagion effects. Their disruptive potential on the entire financial system was clearly recognized: hence the emphasis placed on the need to exercise stricter surveillance over

¹ See, for example, Rose and Svensson (1994). A significant exception is Vaciago (1993).

² The ERM crisis was not even considered by most as a symptom of the lack within Europe of some of the 'optimum currency area' characteristics that the literature had identified as key. A 'mainstream' analysis of the ERM crisis is offered by Krugman (1996). It is centered on the notion that a progressive deterioration of economic fundamentals in some of the national components of the exchange rate mechanism could well be taken to indicate that conflicts between internal macroeconomic objectives, the utilization of monetary policy to reach them and the defense of an exchange rate system possessing excessively limited flexibility were in the making, and thus that the abandonment of the existing exchange rate arrangements was foreseeable.

the economies, and in particular the financial sectors, of the member countries most active within it. The International Monetary Fund (IMF) was entrusted with this task. It was to supervise more closely the macroeconomic policies of member states, and above all of the emerging economies, where financial structures were considered to be more fragile and exposed to greater risks from growing inflows of external capital than elsewhere. Enhanced monitoring was to be extended (as far as could be done from outside) to their banking and financial systems so as to spot promptly and signal weaknesses which, if undetected, could result in crises like the Mexican one. Improved prevention was the new goal.

At the theoretical level, increasing recognition of the possibility of asymmetric information between subjects operating in both national and international financial markets (creditors vs. debtors, local creditors vs. foreign creditors, etc.) and of growing costs connected with the acquisition and processing of information (given the multiplication of assets traded, internationalization of portfolios and growing number of markets), together with a better understanding of the consequences deriving from these circumstances on the efficiency and stability of these markets, underscored the need for them to be able to generate information meeting all the legitimate demands of agents in quality and quantity. Up to the end of 1997 this was the drift of practically all the most authoritative indications of the world monetary and financial establishment regarding the responses to be given to the problems of instability so far encountered.³

The standard view was that the markets had to be placed in a position where they could work more efficiently, coming to more accurate investment decisions and at a better pricing of assets thanks to improved information. In deregulated, liberalized and open markets, where the differences between national and international transactions were becoming rapidly obsolete, these needs were being felt with

³ See, for example, the text of the speech delivered by the Managing Director of the IMF to the International Seminar on Central Banking held in Washington on January 31, 1997 (Camdessus 1997), the Report on 1997 Review of Surveillance presented to the Board of the IMF (IMF 1997b) or the text of the Group of 10 Communiqué of April 28, 1997, which endorsed the recommendations contained in the Report on the "Prevention of Financial Instability in Emerging Countries" prepared by one of the group's working parties. A similar approach was also advocated by the Group of 7 to manage international financial crises (Saccomanni 1999).

greater urgency than in the past, and meeting them, it was stressed, could not be postponed for long.

Among the assets being traded internationally in growing quantities there were, of course, the various national currencies. Almost incomprehensible numbers regarding the size of daily transactions in foreign exchange were often quoted. But this aspect of the asset pricing problem, i.e. the determination of market exchange rates among currencies, was receiving scant attention at the official level. The importance of exchange rate regimes, for example, was not stressed within the framework of improvements sought to obtain better-functioning financial markets and economies, as if they were not central, or did not affect significantly financial equilibria or even the supply of credit to enterprises or its cost.

In addition, the success encountered with the 'salvage' of Mexico, a rescue effort initially directed by the US Treasury and with which the international community was only later associated, was generally taken to mean that managing these crises was possible, if perhaps costly. It seemed to offer an effective model that could be utilized to tackle payment crises in emerging open economies. The response given to the Mexican crisis consisted in a massive infusion of external credit to ensure immediate solvency, and a mix of restrictive monetary and fiscal policies to underwrite the necessary adjustment in the macro fundamentals of the country. Well accepted by markets – as witnessed by the rapid return of external capital flows to Mexico –, this strategy appeared to have brought a rapid end to a major financial crisis following upon a botched devaluation of the national currency. So strong did confidence appear in the soundness of the strategy implemented in this case that new and sensible proposals to deal with future liquidity crises of sovereign countries, advocated in a Report drawn up by a working party set up within the Group of 10 (1996), and headed by the General Director of the Treasury of Italy, were not followed up operationally in any meaningful way.

The internal costs shouldered by Mexico to overcome the crisis had not been small in effect – neither in terms of financial disruption nor in lost output. There had been a sharp decline in domestic economic activity in 1995 (which had extended to Argentina), an increase in unemployment, plus steep costs for the national budget to cover the restructuring and recapitalization of domestic banks overwhelmed by the crisis. Yet, the international financial system had returned to

stability after the initial jolts it suffered quickly enough for a strong propensity to emerge within the IMF in favor of capital account convertibility to parallel and complete convertibility on current account and to ensure further progress in the liberalization of capital inflows in emerging markets. A proposal to amend the Articles of Agreements of the IMF, so as to reflect this new goal and to assign the related responsibilities to the institution, was tabled and endorsed by its Interim Committee in April 1997 (IMF 1997b). Momentum for the move grew rapidly, and official support for it (or at least lack of opposition to it) appeared to be quite general among the members.

Given the dimensions they rapidly took on and the intensity of their effects both inside and outside the region, the Asian crises, which began with Thai devaluation in the summer of 1997, unlike the previous ones, not only caught the international monetary and financial establishments completely by surprise, but also profoundly shook the confidence they had until then conserved in their ability to cope with new episodes of monetary and financial turbulence, and in the institutions through which the global system was governed. It also cast serious doubt on the conclusion previously reached that the strategy so far advocated, and in part implemented, to create a better system of collective financial security was sufficient to the purpose. Despite the hesitations to enter this domain shown at the official level, the Asian crises also brought to the fore the systemic problem being faced: that of the capacity (or lack thereof) of the international monetary system (and of the world of private finance operating within it) to prevent, contain and effectively manage exchange rate crises where intersected by serious banking crises and occurring in a context of globalized markets.

The latest crises, and their aftermaths, have also shaped the debate on "what to do next" in the face of these problems. This is, in fact, a perfectly understandable outcome – an almost inevitable consequence of the circumstances in which the IMS came to find itself, the dangers that it suddenly came up against and the novelty of some of the problems that arose during the later episodes of exchange rate and financial instability (such as their apparently global contagion effects). Managing these problems, while tackling multiple and sudden country crises, more often than not with a limited array of instruments, was an experience that became deeply imbedded in the collective consciousness of the system.

This matrix of renewed interest in reform work has had the additional consequence of concentrating much official attention on the specific problems that emerged in Asia, and on the possible remedies to them, as witnessed by the interest in the interaction between banking and exchange rate crises, the role of lending of last resort, the scope for involving foreign creditors in the early management and resolution of crises, the debate over the effectiveness of monetary policy measures to support market exchange rates after the forced abandonment of existing pegs and, more generally, in the propriety and effectiveness of the countries' responses to the crises, shaped in almost all cases with the active participation of the international community and the IMF in particular (the exception here was Malaysia).

Much discussion is still taking place at both the official and private level on how to limit the risks connected with the presence of safety nets operating either at the national or at international level, ultimately limiting the distribution of investment risks and rewards considered proper in competitive markets, and softening (sometimes to the point of eliminating) the sanctioning function that they should exercise in the presence of wrong decisions made by participants. Such are the moral hazards inherent in the public guarantees extended to creditors or debtors at the national level, in the public 'salvaging' of entire financial sectors affected by insolvency made possible or facilitated by international credit of public origin (such as that extended by or through the IMF), or in the covert – but at times real and powerful – privileges bestowed on certain firms or agents as the consequence of political or family connections (such are the problems of crony capitalism). In addition, in various institutional fora, as well as in academic and financial circles, questions are being raised regarding the desirability of having a proper lender of last resort operating at the international level, which would be in a position to offer needed international liquidity to national financial systems affected by temporary crises with significant risks of contagion: all this being in the name of safeguarding monetary and financial stability at the international level, considered as a form of public good.

One only need examine the Report presented to the Interim Committee of the International Monetary Fund by its Managing Director in October 1998 (IMF 1998) or those prepared by the Working Parties of the Group of 22 (1998) or simply the Communiqué of the Finance Ministers of the Group of 7 (1998), to realize where the at-

tion of the national and international authorities is now concentrated: almost exclusively on three areas. The first is on how to strengthen the national financial systems considered more vulnerable (in general those of the emerging countries of Asia and parts of Latin America). The second has to do with possible ways of managing – with lower costs than in the past – the crises that inevitably will occur in the future. The third consists in the ways in which ‘transparency’ and ‘accountability’ of market actions and agents can be improved. All this goes under the heading of reducing information asymmetries in financial markets and lowering the costs of acquiring and processing information for the agents operating in them, which represent steps towards reducing the risks of real or presumed market failures, but have also become a sort of fetish in the era of global public relations. In it, being seen to do what the public considers the ‘right things’ is almost as important as doing what in reality is most needed and appropriate. ‘Transparency’, for example, has now clearly acquired an important dimension as the ‘right thing’ in its own right.⁴

On the other hand, without wishing to underrate the importance of these aspects of the intervention strategy now being pursued, there being real logic and value in many of the proposals to improve things in these areas now being considered (Filosa 1998), we must say that, even if taken together, they are not in themselves sufficient to get to the core of the instability problem emerging in the international monetary and financial system in the 1990s. The recent episodes we have seen have systemic roots that must be clearly identified, and derivatives that must be duly confronted if we wish to guarantee future effectiveness for the approach to reform now taking shape.

One of these roots can be found in the indeterminacy of the exchange rate regime that has come into being since 1971, which should more properly be called a ‘non regime’, as it was by John Williamson, given the non-choice that it reflects, and in the direction taken by the individual exchange rates decisions made by many members of the

⁴ This is shown by the ill-defined use of the concept in public statements and often even in public documents, particularly when referring to the workings of governments, institutions and public bodies. Naturally, when the concept is precisely defined, as in the case of information and disclosure standards essential to make judgments about investment risk or arrive at proper evaluation of policy actions and decisions, its operational value becomes clear and undisputed.

IMF since then, and above all by the less economically developed members, leaning towards exchange rate rigidity.

Legitimate choices often made in pursuit of priority macroeconomic objectives, such as price stability after hyperinflation episodes, and in difficult circumstances, such as the aftermath of economic and political upheavals, may have been clung to without sufficient consideration for the criteria that should be applied in the choice of exchange rate regimes as emergency conditions end and macro-objectives change. These criteria have to do with size, economic structure, degrees of openness, the nature of the shocks most frequently faced, the stability of the real and monetary conditions prevailing in the various economies, regional situations and their relevance to national policy choices. The theory of optimal currency areas (Mundell 1961, McKinnon 1963 and subsequent refinements⁵) and the literature on the casual disturbances that can affect open economies, starting with Flood (1979), offer important guidance on the issue of exchange rate choices, as do the conclusions of open-economy macroeconomics concerning the effectiveness of domestic policies (especially monetary) under different exchange rate and capital flow regimes. These may in practice have been disregarded.

The freedom of choice of exchange rate arrangements sanctioned by the Second Amendment to the Statutes of the IMF decided in 1976 and effective as from 1978, clearly generated the conditions for the indeterminacy that developed over time, on the one hand legalizing a multiplicity of national exchange rate systems that ranged from absolute fixity to almost absolute flexibility, and on the other rendering acceptable whatever change was made in them autonomously by the single members. In the course of time of exchange rate regime choices and counter-choices followed one another at the country level, with the IMF having varying degrees of influence over them – crucial in some cases, virtually nil in other. The influence of IMF management and staff in these country choices also became more diffused in the 1990s, when many more exchange rates decisions made by emerging countries reversed a trend towards enhanced flexibility that had surfaced in the 1980s, turning in favor of fixity (or reduced flexibility). What emerged were contrasting tendencies even among

⁵ See Tower and Willet (1976) and Tavlas (1993) for surveys of the theory and its implications.

member countries facing similar conditions regarding internal structures and external environments, sometimes located in the same region.⁶

In the 1990s, the tendency towards more limited flexibility of exchange rates between the developing countries was reinforced by contingent factors such as the break-up of the Eastern bloc and transition towards market-type economies of many former members. Most of them came up against suddenly compelling needs, such as internal price stabilization, which many of their governments showed an inclination to pursue by anchoring the exchange values of the national currencies to those of the low-inflation countries, at least during the initial phases of their macro stabilization efforts, when retreat from high inflation took on high priority (or so the official motivations went).⁷

Nonetheless, the implicit assumption of a 'free choice' system of exchange rates, which became quite explicit in the preferences shown by the IMF members in making and changing their actual decisions, seems to have been that all those which were permitted would have consequences only for the makers, and not for the system as a whole. In reality, however, each choice of exchange rate regime made at the country level not only has pros and cons for the maker, but also has effects on the other members and on the efficiency and stability of the system as a whole.

Individual exchange rate choices can generate externalities of negative sign and non-negligible size, as when they create more instability in exchange rates or interest rates, which integrated markets quickly transmit to the prices of other assets across countries and regions. Alternatively, individual decisions regarding exchange rate regimes can generate the wrong incentives in the evaluation of invest-

⁶ In the Southern cone of Latin America, for example, Chile operated under flexible exchange rates and Argentina under fixed exchange rates and a currency board. To their north, Brazil, tied to them by important trade arrangements, kept first a free-floating exchange rate regime, then (after 1994) crawling pegs, and after 1998 again a free floating system. Similarly, the transition economies of Central and Eastern Europe and the former Soviet Union had fixed exchange rates, floating rates and exchange rate regimes with limited flexibility.

⁷ In practice, exit strategies were often not elaborated at the start, and became more difficult to implement over time, given the difficulties and delays experienced in many cases in establishing sufficient credibility for domestic policies and institutions or general risk aversion.

ment risks, as when the promised invariance of market exchange values leads domestic or foreign credit agents to underestimate or ignore expectations of exchange rate changes. These externalities, present to some extent in normal market conditions, become dangerous during crisis periods, manifesting themselves in contagion effects that seem to reach areas very distant from those of origin and seemingly unconnected to them (at least if one judges interdependence on the basis of its traditional features).⁸ It is not in fact a *casual* – but most probably causal – occurrence that all the major crises taking place in the 1990s developed in national or regional exchange rate regimes where fixity (or very limited flexibility) prevailed: in the ERM, Mexico, Thailand, Korea, Malaysia, Indonesia, Russia and lastly in Brazil. The choices made in terms of exchange rate regimes seem to have had an influence on the amount of financial and exchange rate instability that we have witnessed lately.

Finally, when proposals are made that aim at reducing exchange rate flexibility among key currencies such as the dollar, the euro and the yen, and these come not only from reasonable and knowledgeable people (Bergsten 1998), but also from key members of the international monetary systems (such as the top economic leaders of Germany and Japan) in the name of reducing 'instability' in world exchange rate markets, it becomes a truly urgent matter to clarify the reasons for this phenomenon, its connections with financial instability, and the direction of the cause-effect relationships between exchange rate and financial fluctuations. Without this clarification, one runs the risks of acting on the wrong side of the instability equation.

The objective of reducing fluctuations in market exchange rates (at least in some of them) takes on a certain aura of plausibility – especially when the memory of past crises is fresh, their effects are quite visible and the possibility of new ones is still strong. Systemic movement in this direction would nonetheless be inopportune, if in fact it were not excessively large, but excessively limited flexibility of

⁸ Naturally, contagion effects are very difficult to identify with precision. More than the usual caution must, therefore, be applied in interpreting those that apparently emerged during the latest episodes of financial and exchange rate instability. Contagion effects, as far as one can judge, seem to have been strong within the Asian region, but much less clear and certain between Asia and Russia and Asia and Brazil. The crises of Russia and Brazil had strong autonomous determinants. One can argue that they would have occurred also in the absence of the Asian crisis.

exchange rates at the global level the cause of a substantial portion of currency and financial instability, such as the one that emerged in the past decade. However one may judge the practical feasibility of any such plan, this is a point that still applies.

Analyzing the roots of the instability problem thus becomes not only relevant but, indeed, necessary in view of the choices that will have to be made in reforming the international monetary and financial system, and it would be truly short-sighted not to conduct such analysis *ex ante*. It is a matter not only of sheer rationality, but also of plain good sense, to examine the costs and benefits of the available options before experimenting them, even though the conclusions that can be reached in these areas by their very nature tend to remain quite tentative. The possible choices are in fact not only difficult to define fully in terms of their effects, but – given the nature of the process – also reflect the dictates of international political economy, and thus dimensions of feasibility and players' preferences, apart from analytical results. For these reasons, when making decisions on such complex and uncertain matters, one needs to utilize, along with analytics, the benefits of historical experience, the results of empirical research, and a large dose of realism.

2. Exchange rate choices: criteria, determinants and effects

Choices regarding exchange rate regimes are of crucial importance for those who make them, and at the same time present formidable difficulties. Exchange rates are key prices. They exert pervasive influence on the economic systems to which they apply. In the presence of rigidities in the markets for goods and factors, which to some extent exist in all economies, changes in nominal exchange rates have real effects. Moreover, each regime has its own advantages and disadvantages in terms of the types of adjustment it favors and of the macroeconomic goals that it best allows to pursue. In other words, it has significant consequences on the effectiveness of policy instruments. Different regimes also face different problems while they are being implemented and while they are functioning. Finally, various degrees of credibility are attached to them. Some of the preferences surrounding them are also historically determined.

For example, the choice made at Bretton Woods to implement a system of fixed exchange rates, adjustable only in the presence of fundamental disequilibria in the balance of payments of members, reflected not only the theoretical preferences of the time about price regimes and a conception of current account adjustment that was dominated by income effects, but also the quest for stability in trade and currency relations after the turbulence and conflicts that arose in the 1920s and 1930s, when a 'free for all' system of exchange rates had prevailed after the final collapse of the renewed Gold Standard. Such a choice, made in the mid-1940s, reflected in addition a sense of generalized skepticism about the efficiency of international capital markets, itself a consequence of both inter-war and World War II experience. In this period the international financial market had not only worked poorly, but had eventually shrunk so much that it seemed to have practically disappeared. The transactions for which it was then felt essential to ensure the foreign currency counterparts, and in some case financing, were thus in practice those in current account. Foreign financing, when needed, could in the vast majority of cases then envisaged only be expected to come from official sources.

The current situation is radically different from that within which the Bretton Woods agreement matured, in terms of both historical context and systemic realities (Fazio 1998). There are no longer significant barriers to most commercial transactions, settlements for them being made without impediment in both the industrial world and in over two thirds of the developing countries belonging to the IMF. Capital markets are generally deep, liquid and functioning rather freely at both the local and the global level. The liberalization of capital account transactions has proceeded fastly inside the international financial system, led mostly by markets dictates. Nonetheless, the historical experience of the past three decades – decades witnessing the resurgence of financial markets on a world scale – has often been characterized by ample cycles in capital movements and also, in some periods, by tumultuous swings. Such events have highlighted the risks of failure to which these markets can be subject, and directed attention to their possible reasons.

There have unquestionably been phases of rapid growth in capital flows at the international level, like the 1970s, when banking credit to the developing countries expanded greatly, and in the first half of the 1990s, when direct and portfolio investments surged

worldwide. These were followed by periods of marked contractions in these flows, generally after episodes of crises, some widespread, such as the developing countries' sovereign debt crisis in the early 1980s, some country-specific, like the Mexican crisis of 1994-95, and some regional, like the Asian crisis of 1997-98. There have also been periods in which the exchange rates (both nominal and real) of the major currencies have deviated substantially from equilibrium (or more simply from their trend values). Notable misalignments of dollar exchange rates occurred, for example, between 1980 and 1987 and in a less generalized manner between 1994 and 1998.

Go-stop-go experience in international capital movements, and the cyclical swings in the exchange rates of the major currencies could not fail to influence the proclivities of the governments of many countries regarding exchange rate regimes. While the attitudes of some remained fairly benign, in many developing countries this apparent instability led to reinforcement of the existing inclination either to manage exchange markets or to anchor individual currencies to those of 'suitable' trade partners.

However, before attributing the variability of exchange rates or their cyclical misalignments to the expansion of the financial markets and the progressive liberalization of capital flows, we must at least to consider how major currency crises, such as the one that led to the collapse of the Bretton Woods regime (Solomon 1982), occurred well before the 'globalization' of international finance, and how the economic policies of key countries, such as the United States, played a critical role in the misalignments of exchange rates emerging in the 1980s (Obstfeld 1995). The causes of these events are known and well documented in the literature, even though they often seem to be forgotten at the policy making level. Finally, one must also consider that the currency crises of the 1990s did not emerge from national and regional contexts where flexibility of exchange rate regimes was the norm. On the contrary, they occurred in countries and regions where nominal exchange rates were generally allowed little flexibility and real exchange rates were in progressive and marked appreciation.⁹

⁹ The real exchange rate had appreciated by 35% in Mexico between 1988 and 1994, by about 25% in Thailand, Indonesia and Malaysia between 1990 and 1997, and by 15% in Korea over the same period. In Russia the appreciation of the real exchange rates had exceeded 40% from the beginning of 1995 to the middle of 1998. In Brazil the real rate had appreciated in real terms by at least 30% from the start of 1994 to the end of 1998.

There are economic criteria that can guide the choice of exchange rate regimes at the country level having to do with the feasibility and the optimality of such choices. Among the former we find the susceptibility of the various economies to the shocks that may hit them from within or without, their economic size and degree of openness, and finally the preferences towards inflation and growth prevailing in their midst. Among the latter are criteria regarding the efficiency of policies and interventions in foreign exchange markets. In the literature, the optimization criteria assumed for this type of choice tend to be either very case specific or quite abstract and general. Usually the programs utilized are also complex (see, for example, Argy 1990 and Bruno 1991), and their results, therefore, of limited use in practical decision-making.¹⁰ Recently, in both the literature and the policy debate the focus has been on the link between the choice of exchange rate regime and the credibility of macropolicies, with much attention being paid to the possible trade-offs between credibility and flexibility, given the typology of disturbances that the economy faces, its structural characteristics, the political economy prevailing in it, and in particular the political costs of exchange rate adjustments. The higher these costs, the stronger tends to become the propensity of policy-makers to adopt flexible exchange rate adjustments (Edwards 1996).

The problem of the choice of a global exchange rate system has received little new analysis since the great debates of the 1960s over fixed vs. flexible exchange rates. There are economic criteria also for this type of choice. If it is global price stability that is favored, nominal anchoring becomes an obvious route towards it. Alternatively one can see the ease of international adjustment as the main standard for the choice.¹¹ Much of the recent debate and analysis, however, has focused on the needs for policy coordination to achieve greater exchange rate stability through enhanced compatibility of macroeconomic objectives, such as world inflation and growth. Most proposals for reform, including the best structured (McKinnon 1984, Williamson and Miller 1987), have gravitated around the issue of international policy coordination. It has nonetheless proved difficult to reach generally applicable results in this area as well.

¹⁰ An exception is Corden (1994).

¹¹ Frenkel, Goldstein and Masson (1991) have recently reviewed the characteristics of a "successful exchange rate system".

In our opinion, an essential characteristic of any exchange rate regime, whether local or global, should be a high capacity to help economies to adjust to changes occurring in their internal and external conditions, and to make this process the least possibly disruptive to the others. From the systemic point of view, a global exchange rate system should strongly favor continuity in the adjustment processes, symmetry of adjustments, and the stability of the financial markets. Decisions made in this domain should tend towards such 'minimum common denominators', while also bearing in mind that they are not invariant with respect to time.

In fact, rapid and often profound changes occur in national and global economic conditions. Economies grow and develop in different ways. Financial deepening occurs in the course of growth. Certain market rigidities are eliminated, others emerge. Trade and financial connections with the rest of the world generally increase with growth. Rules and standards for these connections and interactions also evolve. Finally, public preferences change, often radically, and thus different macroeconomic objectives acquire preeminence. Some of the preferences that change have to do with basics: inflation, growth, market regimes, typology of international cooperation and attitudes towards risks, while others are the result of political and social ideals.

Where there is freedom of choice in exchange rates, such as that ensured to members of the IMF since (in practice) 1973, the first question that arises is whether or not their 'revealed preferences' about exchange rate regimes conformed to a common logic, or were at least characterized by a high degree of reciprocal compatibility. The answer to this question is far from simple. There are data that show how non-marginal changes have occurred in the exchange rate regimes of IMF members since the early 1970s (Flood, Bhandari and Horne 1989; IMF 1997c), but there are serious problems of interpretation in this domain as well. The main problems lie in the definitions of the exchange rate regimes around which the data are organized, which are qualitative rather than quantitative, and in the discretion left to IMF members to characterize the regimes adopted (pegged arrangements, flexible arrangements, arrangements having only limited flexibility).¹² Thus, what constitutes fixed or flexible exchange rates is

¹² See any issue of the IMF *International Financial Statistics* for the official categories and the number of countries (self-)categorized as belonging to each of them.

in practice left indeterminate. Many regimes officially classified as flexible have in reality shown very limited flexibility. Even fixity proves a more elusive concept than it would at first appear, if rigorous standards are applied to verify it *ex post* (Obstfeld and Rogoff 1995). In addition, countries autonomously choose the 'slot' in which their exchange rate regime is classified. After adjusting for these factors it is very hard to detect unambiguous tendencies in the choices made.

Starting in the early 1970s, the economically more advanced countries showed, at first, a fairly clear preference for flexibility in the exchange values of their currencies. This made economic sense for many of them, having economies relatively open, of medium-size, diversified and financially developed, but with various rigidities in factor markets present in them, and at the time apparently much exposed to real external shocks. Later on, especially as efforts to create a European monetary area took shape, first with the creation of the EMS in 1979 and subsequently with the addition of an ERM to it, the flexibility in the exchange rates of the majority of industrial countries became much more limited. A marked change in preferences among many of them, in favor of greater price stability, played a crucial role in orienting choices towards reduced variance of exchange rates. This trend was particularly strong and long-lasting in Europe. Among the currencies of 11 of the countries sharing the objective of a monetary union, exchange rate flexibility has been eliminated as of January 1, 1999, when the European Economic and Monetary Union (EMU) entered into effect, even though it is being preserved *vis-à-vis* non-member currencies (such as the dollar, the yen, the pound and others). The industrial countries officially classified as having "independently floating" exchange rates numbered 5 at the beginning of 1991. They are now 7, including the euro area.

The developing countries belonging to the IMF, by contrast, showed marked and prolonged skepticism about flexible exchange rates, preferring at the beginning of period of free choice fixed or quasi-fixed pegs with the currencies of major trading partners or of prevalent invoice of trade (mostly the dollar and the French franc). The reasons behind these choices were many and various in nature. Until the 1970s, there persisted among many of them a marked pessimism regarding export elasticities despite growing evidence to the contrary offered by the export performance of the newly industrializing countries. This made price adjustment suspect. There were also regional preferences, which were the result of historical experience

and sometimes of ideological preferences. In West Africa, for example, there remained dominant a propensity, French in origin, for 'orderly markets', including foreign exchange markets, and therefore for fixed exchange rates (as shown by the pegs to the French franc within the framework of the CFA¹³ arrangements). In Latin America there was a traditionally strong aversion to exchange rate changes (including discretionary devaluations), considered inflationary in the conditions believed to prevail in many of the economies of the region. This propensity had a clear 'structuralist' root. On the other hand, in parts of Asia - those most determined to grow through trade - were at work 'mercantilistic' tendencies. According to the going strategy, exchange rates were to be kept undervalued in order to stimulate exports, the main 'engine' of growth in significant parts of the region: first the south east, then also parts of the north. Exchange rates were seen, in general, as policy instruments, to be used according to the priority goals being pursued. In China and India, finally, the preference towards pegged exchange rates had long had political motivation: that of preserving economic independence, and therefore latitude in internal and international political choices, which excessive openness to trade and dependency on external capital flows would have compromised. Hence the preference for strictly managed external relations, capital controls and fixed exchange rates. These preferences only began to change in the late 1970s.

A greater differentiation in the exchange rate choices of developing countries started to emerge at large in the late 1970s, and with it also a certain tendency towards more flexible exchange rates. The weight of theory and experience was being felt more widely. If small, very open, poorly diversified, financially undeveloped economies could still find it preferable, and justifiable, to keep exchange rate fixed, for larger, relatively less open and more rapidly diversifying developing economies, pegged exchange rates were being found constraining or at least sub-optimal from the stand-point of growth. This was even more the case when structural rigidities kept trend inflation above that of foreign competitors. As a result, attitudes changed, experiments were made (not all positive, as in the first wave of liberalization and reforms in the Southern Cone of Latin America) and a greater pragmatism developed in exchange rate choices.

¹³ Communauté financière africaine.

At the start of the 1980s there were 4 developing members of the IMF that had 'independently floating' exchange rates. At the end there were 19. This number had risen to 29 in 1996, out of a total of 123. Another 21 classified themselves as 'managed floaters'. The latter were countries that, through market intervention, kept exchange rates within predetermined limits. In practice, however, if the margins of fluctuations were too small in absolute or in relation to the inflation differentials with the rest of the world, as often happened, the underlying exchange rate regime was more fixed than flexible, or not flexible enough to preserve the invariance of the real exchange rates and help maintain internal and external equilibria. In addition, official designations notwithstanding, the most important developing countries remained for much of the post-1973 period with substantially rigid exchange rate regimes. So did China, Hong Kong, Taiwan, Korea, India, Pakistan, Nigeria, Saudi Arabia, Argentina, Mexico and, from 1994, Brazil too (hitherto the main exception within this group). Thus, trends based on the number of countries contained in each of the official exchange rate categories have limited value. At best indicative only of some single situations the official categories can become highly misleading when taken as a basis for aggregating a large number of different situations.

Some very broad regional preferences towards exchange rate regimes seem nonetheless to have emerged over time. In favor of rigid exchange rates (i.e. pegged rates, if modifiable at the discretion of the national authorities) stayed most of the developing countries in Asia, Africa and the Middle East. The choices of the developing countries in Latin America proved more eclectic, while the countries of Central and Eastern Europe, and those once belonging to the Soviet Union chose rigid exchange rates in about half of the cases when they gained the freedom to do so (currency boards, target exchange rates, etc.) and systems with only limited flexibility in another quarter of the cases.

Differing preferences cut across the stages of development reached by the individual economies. In Asia, for example, fixed - if modifiable - exchange rates were preferred by the low-income and middle-income countries alike: India, at the bottom of the regional per capita income scale, Korea at the top, and China in the middle made virtually identical choices. The same pattern emerged among the low-income sub-Saharan African countries (for example those of West Africa) and the middle-income countries of North Africa and

part of the Near East. Finally, we see that a cross-section of the emerging countries in Latin America and Africa facing high and persistent inflation problems as from the latter half of the 1970s – joined more recently by many economies in transition in Central Europe and the former Soviet Union – often adopted similar inflation control strategies based on a semi-permanent pegging of their exchange values to those of the currencies of low-inflation countries or groups. Moreover, many did so with the consent of the IMF, and with results judged positively on the whole (Fischer, Sahay and Vegh 1996). These choices were made, allegedly, to give more credibility to the disinflation policies being pursued internally, and in part to reduce their costs (in terms of output and employment losses due to overvaluations of the real exchange rates) in the early phases of the disinflation process.¹⁴

Yet, even in these cases and for the periods in which the strategies of inflation control based on pegged exchange rates worked well (such as in Argentina, Brazil, Israel, Poland, Bulgaria, Russia), in time lack of adjustment of the nominal exchange rate to the persisting differentials between domestic and world inflation (due, for example, to the time necessary to reach the world inflation rate¹⁵) created a tendency to overvalue real domestic exchange rates, despite allowances for this effect made at the stage when the new pegs were chosen.¹⁶ Overvaluation often generated current account disequilibria, loss of

¹⁴ When starting inflation is very high and rigorous disinflation policies are deployed, the first phases of the re-entry process are often characterized by lags in the path of stabilization of wages and prices with respect to the nominal exchange rate. This leads to appreciations of the real exchange rates. A fluctuating nominal exchange rate during these phases would tend to exacerbate the real appreciation problem if domestic interest rates increased (for example as the result of more restrictive monetary policies) and capital flowed in. In these circumstances, an appreciating nominal exchange rate would add to the real appreciation already under way.

¹⁵ Experience shows that domestic inflation falls rapidly in the initial stage of rigorous disinflation programs, then reaches a lower plateau around which it tends to stick until new measures are added to the original ones. This stepwise pattern of adjustment tends to maintain a differential between domestic and world inflation for a longer period than normally anticipated on the basis of continuous adjustment paths. The cumulative inflation differential, moreover, becomes larger if world inflation is also falling, and the fall is larger than anticipated. A considerable and largely unanticipated fall in inflation occurred in the industrial countries during much of the 1980s. In the 1990s continuation of this trend was also less expected than in the previous decade.

¹⁶ Initial exchange rates are normally pegged at 'undervalued' levels.

credibility for the policies pursued, and predictable (and rational) responses by local and foreign investors in defense of their liquid assets denominated in the domestic currency.

The proclivity shown by governments in most situations of this type to stick to the chosen exchange value, and to avoid the necessary adjustments in nominal parities, often on the basis of opportunistic reasoning (such as insufficient evidence of real appreciations or the 'desire' to force factor productivity improvements within the national systems by keeping the nominal exchange fixed), is not difficult to explain. It often represents the least risky response by policy makers in the domain of inflation reduction and control. In some cases, they do not wish to jeopardize economic results already achieved, often at considerable costs. In others, it is the political credibility gained with anti-inflation policies that they seek to preserve. In yet other cases, it is the political legitimacy coming with successes in the economic sphere. We may recall here the instances of Yeltsin's Russia, Cardoso's Brazil, Menem's Argentina or Salinas's Mexico during the 1990s, when abandonment of rigid exchange rate regimes, even when considered advantageous from the point of view of external adjustment or growth, was for all too long judged incompatible with internal political stability or with the continuation of governments that had their largest political capital in successes scored in controlling inflation.

However, avoidance of these risks all too often gives rise to other problems: internal interest rates driven too high and constricting economic activity, weakened domestic financial systems, excessive accumulation of foreign debt, debt maturities too skewed towards the short term and, in the final analysis, much greater risks of turbulence for the very currency market that was to be kept stable at almost all costs. Financial fragility, especially when accompanied by disequilibria in the fundamentals and when intersected by political uncertainty, is a powerful determinant of currency turbulence, given the play of expectations, the emergence of speculative probes against fixed (or rigid) exchange rates and occasional transmission of external market impulses.

Promises – including promises about exchange parities – even when made with the best of intentions and sincere determination to keep them, carry maintenance costs, which can and indeed do begin to soar whenever internal circumstances generate new uncertainties

and risks. Governments do not have an unlimited tolerance to rising maintenance costs, stemming either from losses in production and employment consequent to rising domestic interest rates and appreciating real exchange rates, or from higher budget needs due to weakened financial sectors and growing debt service burdens. Beyond a certain threshold, adjustments in exchange rates become rational in the political market place where public decisions are sanctioned. When maintenance costs exceed the benefits deriving from keeping exchange rate promises (from credibility of policies, institutions, regimes, etc.), it is exchange rate parities that are changed. This is not a matter of developed vs. emerging countries. Limited tolerance to the costs of adopting or maintaining policies necessary to keep exchange rates unchanged, particularly when faced with daunting challenges in the currency markets or fragility in the domestic financial sector, has been shown by the authorities of both categories of countries, including Mexico in 1994, Brazil, Russia, Thailand and Korea in 1997-98 and Italy, Sweden and the United Kingdom in 1992.¹⁷

Where propensities are towards limited adjustments of nominal exchange rates, systemic disincentives and collective sanctions should be at work to counter them. At the very least, there should be a timely and effective exercise of moral suasion on all categories of countries – be they large or small, developed or undeveloped – that show the inclination to delay necessary changes in parities. Such sanctions, or adequate collective pressures, pertain in the first instance to the other members of the IMS, in the name of the public interest in stability in international trade and payments and minimization of the risks of international financial contagion deriving from local crises. They should be deployed individually by each member of the system capable of doing so, by groups of members politically, economically or geographically close to the reluctant partner, and collectively through the international financial institutions by which systemic rules and behaviors are surveilled or at least influenced.

¹⁷ Naturally, these levels of tolerance vary from one country to another and over time in the case of the same country. Sweden, for example, showed a much stronger determination to keep its exchange rate within the predetermined bands than other EMS partners under attack in mid-1992, pushing up domestic interest rates to extremely high levels (up to 500% for a short while), but a much weaker one when market pressures were renewed in the fall of the same year.

However, experience shows that single countries are often unwilling or ill disposed to exercise *ex ante* sufficient pressures to change the exchange rate behavior of the other members, even where it would be locally beneficial and also clearly conducive to greater global stability, probably in order not to appear too intrusive in delicate policy decisions considered primarily the sovereign domain of others. Not even the United States was willing (or able) to exert enough pressure on Mexico to adjust the exchange rate of the peso in 1994, despite growing signs that a payment crisis was in the making, while critical presidential elections were taking place in that country and the interests of many US investors were strongly in favor of political continuity there. Governments always have diverse objectives to reconcile, internal and international. Making choices on the basis of simple expectations is often difficult for them, and inertia prevails in many cases. Even when delegated on the basis of international agreements to collective organs, such as the IMF, this type of surveillance on the behavior of member countries, and persuasion through advice, has been shown to be somewhat ineffective when not exerted within the domain of specific assistance programs (i.e. when members themselves become persuaded of the need for changes and specific conditions can be negotiated into these programs).

General exchange rate surveillance has lacked not only clearly recognized and specifically defined constitutional anchoring, which could justify forceful pre-emptive pressure on reluctant members not yet in crisis, but also the collective political backing of members to let the IMF exercise it with the necessary authority before major crises erupted. In the IMS as it is today, exchange rate rules are neither sufficiently definite (e.g. in what the permissible choices imply) nor common enough even for the various categories of choices that are contemplated in them (e.g. pegged, managed or free floating rates) to permit effective collective surveillance of them.

To influence choices in these circumstances the IMF must resort to specific, case by case, judgments regarding the sustainability of a given exchange rate regime or its desirability from the stand-point of plausible and acceptable objectives, such as growth and price stability. Such judgments are always difficult to arrive at: they are necessarily based on partly conjectural assessments, do not have automatic credibility, and are often perceived as asymmetric by smaller members. The scenarios of possible consequences deriving from non-adjust-

ment, on which IMF pressures on member countries can be built, are often technically arguable in their assumptions or choices of parameters, hypothetical in some of their basic circumstances, or not sufficiently clear-cut in terms of conclusions.¹⁸ Therefore, they have only limited capacity to persuade those they target, as well as the members of the IMS that might make their own efforts to persuade reluctant neighbors or partners to make necessary changes. Large countries, moreover, have greater capacity to resist unwanted advice and peer pressure than smaller countries, because of their greater political and economic weight within the system and their larger capacity to mobilize countervailing support from others when needed. The consequence is often inaction, which becomes a strong collective temptation, if not the rule, sometimes tinged with wisdom, sometimes with cynicism.

This is the hard core of the problem of IMF 'authority' over its members, now the object of considerable reflection. It is in the main less a problem of institutional 'architecture' than one of precision in the rules and coherence in the collective efforts of members to have them applied with sufficient strength and uniformity across country situations. A large part of the sometimes deprecated lack of 'authority' of the IMF¹⁹ stems from scant consensus among its members over the common regimes that should be enforced, the exchange rate regime being key among them. As a consequence, instead of sound rules and generally accepted standards in this vital area, the system is based on case by case judgments, compromise and sometimes ad-hockery.

Those mentioned here are not the only problems related to the current system of 'free choice' in exchange rates and to the weak enforcement of criteria for choice and change. There are indeed others, but these emerge systematically not only from episodes of crisis that

¹⁸ Often even very unfavorable results that can be shown to derive from lack of exchange rate adjustment can be modified by alternative policies, which can be shown to alleviate some risks and reduce the costs of non-choices in the exchange rate domain. Therefore, feasible alternatives to exchange rate changes seem thus available and pressure for such changes is then alleviated. However, these policy alternatives are often more difficult to follow than exchange rate changes, and are often not implemented. Countries can more successfully deflect peer pressures than the consequences of their non-action.

¹⁹ More recently it has become popular to deprecate the excessive strength and propensity of the IMF to intrude. This a new twist in the approach, and a position that most insiders would probably find difficult to consider grounded.

have actually taken place, but also of crises that have been avoided: India, South Africa, China and Hong Kong to name but a few.

3. Fixed exchange rates and financial crises

If currency crises were at the origin of the instability that we see emerging with increasing frequency inside the IMS, and financial crises were their direct consequence, we could of course focus only on the causes of the former. We should in any case attempt to answer the traditional questions of whether and how different exchange rate regimes favor internal and external adjustment, of the costs and benefits connected with such regimes, and of the stability or lack thereof of the various alternatives that could be adopted. And indeed these are the classical questions.

They remain valid and relevant, since the quality, efficiency and speed of the adjustment processes that become possible under each exchange rate regime have important consequences for the vulnerability of economies to real and financial shocks arriving from the outside and for their adaptability to changes in the expectations of domestic economic agents and in internal policies. These consequences in turn determine a good deal of the probability that the chosen exchange system be subject to justifiable and predictable market pressures or to unpredictable ones.

The external position of the countries and the changes it goes through may not suffice alone to account for the emergence of currency crises or their range of effects, but they do always exert influence on them, either directly or indirectly. This is confirmed by history and the empirical evidence, which shows, if with some variation, how larger external debt (and shorter maturities of it), lower foreign exchange reserves and larger overvaluations of real exchange rates increase the risks of currency crises (Obstfeld 1995; Frankel and Rose 1996; Kaminsky, Lizondo and Reinhart 1998). Deterioration in these fundamentals has in the vast majority of cases been close to the heart of the currency crises we have witnessed in the post-World War II period, or at least in its immediate vicinity.

The partial exceptions of Malaysia and Indonesia before the most recent crises in Asia are not sufficient to shake this empirical regularity. The evidence previously accumulated had already highlighted how the fundamentals, often defined in flow terms, should be made to include stock variables such as foreign debt (plus its composition and maturity structure). Indonesia and Malaysia, like Korea before the same crisis episode, Mexico by 1994 and Brazil by 1998, had accumulated a stock of foreign debt that was high in relation to their reserves and current capacity to replenish them. That these were mostly debt stocks accumulated by the domestic private sector and contracted with private investors overseas did not change the nature of the problem. Service and repayments of any type of external debt require foreign exchange. Deterioration of economic fundamentals is bound to change risk perceptions at home and abroad regarding payment capacities and related effects (on adjoining enterprises and banks, for example). Implicit and explicit guarantees extended to foreign creditors on the solvency of domestic debtors or availability and price of foreign exchange are also bound to be questioned more deeply and abruptly when confidence ebbs. Flow reversals become much more likely in these circumstances. Naturally, the process of credit withdrawal can be more or less disruptive depending on its speed and dimensions, which can indeed be influenced by market failures. But the underlying fragilities – financial, economic and often political – constitute a *sine qua non* condition for panic to occur.

At the aggregate level, moreover, one cannot configure a situation of excessive foreign indebtedness in the absence of a protracted deficit in current account which, in a situation of fixed nominal exchange rates, must portend overvaluation of the real rate. External disequilibria, and underlying appreciation of the real exchange rates were, not surprisingly, a common feature of the macroeconomic conditions prevailing in most of the countries before the currency crises exploded in the 1990s, as also in the previous periods. Confining our attention to the most current crises, a sizeable deficit in current account and overvalued currency obtained in Thailand and Korea in 1995 and 1996, in Brazil in 1998, as in Mexico in 1993 and 1994. Russia did not have a current account deficit in 1996 and 1997, despite the overvaluation of the ruble, but was then in deep recession and unemployment of resources was very large. The fact that current account imbalances were in all these cases emphatically declared as sustainable

by the local authorities, and sometimes by foreign observers as well, given the abundance of foreign financing flows and their origin in the private sector, only highlights the ambiguity of the origins and meaning of current account deficits in open economies, and the almost unlimited willingness of governments under pressure to use all available grey areas for plausible justification to put off macroeconomic adjustments considered politically and economically costly. The assumption that foreign capital would continue to flow in, because private in origin or because of a specific type, is also quite obviously a logical *non sequitur*, contradicted moreover by past experience. Capital flows, irrespective of origin and nature, have time and again proved highly reversible, depending on the conditions prevailing in the areas of destination and the perceptions of investors concerning changes in them.

Not insignificant, as one would expect in open economies, is also the influence that external environments have in the creation of the financial or economic fragilities that breed crises: world interest rate changes, swings in the economic cycle in the rest of the world (or in the main trading partners) and sectoral shocks can be important co-determinants of currency and financial turbulence. The effects of changes in US interest on private capital flows to Mexico were a significant factor in the crisis of 1994 (Calvo and Mendoza 1996). Interest changes in Germany, a consequence of its growing budget deficit following on the absorption of the former Eastern Länder by the Federal Republic, were a cause of the pressure on EMS currencies outside the D-mark area prior to the 1992 crisis. Developing Asia in the late 1990s was suffering from the effects of the prolonged slowdown dragging on Japan since 1992 and the appreciation of the yen *vis-à-vis* the dollar during much of the period. Russia in 1997-98 had been negatively affected by the decline in the prices of energy, its main export product. But, in all these cases, with perhaps the partial exception of the EMS crisis, a better evaluation of risk factors and a more prudent management of external debt would have considerably reduced the fracture created in domestic economic and financial systems by changes in foreign interest rates or in export demand.

Crisis modelling has also gone ahead in leaps and bounds, in some relationship with the number and changing typology of the crises actually occurring. We have now at least two generations of models, if not three. This notwithstanding, there still appear to be expla-

nations in search of crises and crises in search of explanations. A good – and amusing – survey of the models advanced by the economic profession can be found in Rodrik (1998). The first generation emphasized macrofundamentals. The second, which emerged in the 1990s around the EMS crisis, highlighted the possibility of self-fulfilling crises due to various types of market failures. The last, and most recent, generation has in turn underlined the importance of special factors such as “implicit guarantees” and crony capitalism, reflecting the Asian experience.

Yet, despite the variety of premises and, in some cases, their scant likelihood, even the most recent crisis models do not overshadow the role of economic and financial fundamentals, if only as determinants of the fragilities underlying the context in which crises seem to develop even when driven by other factors such as asymmetries in information and the attendant risks of adverse selection and moral hazard, or public guarantees to private investors, which may result from cronyism or shortsightedness on the part of the authorities. Apart from episodes of contagion, such as those affecting Argentina in 1995, as a consequence of the Mexican crisis, Malaysia and, in part, Indonesia subsequent to the 1997 Thai crisis, deteriorating fundamentals have been close to the epicenter of currency earthquakes. Next to them, we find the credibility of policies and institutions as a common factor. In fact these should be considered as an integral part of the fundamentals. When coherence of policies is low, institutions fragile, governments lacking in legitimacy or too conditioned by the political cycle, the markets will begin to mistrust the credibility of commitments entered upon, promises extended and goals announced all the more easily and swiftly.

The new government that devalued the peso in Mexico at the end of 1994 had limited political credibility, given the antecedents to its election. Political fragility can be seen as having compounded economic and financial fragility in all the major episodes of crises since occurring. In 1997 it was there in Thailand, where monetary institutions were also perceived as weak, in Korea, because of a presidential election that threatened to change long-established internal equilibria, and in Indonesia, dominated by cronyism, and where institutions were very weak and often corrupt. In 1998 it was clear in Russia, where the government had no majority in Parliament, and was unable to get any serious fiscal measure approved by it, and in Brazil where,

after a presidential election won by the incumbent, the ability of the re-elected administration to deal with the federal Parliament and state governments appeared to be weakened rather than strengthened.²⁰

Finally, if we turn to the most recent episodes, again beginning with Mexico in 1994, and following with Thailand, Brazil and then Russia, we find another strong common factor in the evident appreciation of their real exchange rates, the result of pegging or excessively limited flexibility allowed to nominal rates. Overvaluation was, moreover, underestimated by the national authorities, too benignly tolerated by the international agencies and generally disregarded until the defense of nominal parities began to put unsustainable demands on the national reserves, and to be noted by the markets with alarm.

These are stylized facts but – one hopes – still facts. They emerge individually from the numerous reviews of recent crises produced so far (see, for example, Obstfeld 1995 and IMF 1999). Collectively, they indicate the critical role played by economic fundamentals, as understood here, financial fragility and political instability in most of the crises we have witnessed in the 1990s, including some that came as big surprises. In addition, they indicate the existence and operation of strong interconnections between nominal exchange rate rigidities, deteriorating economic fundamentals and increasing financial fragility due largely to excessive external borrowing by banks and enterprises (and in the case of Mexico and Russia, and in part Brazil, by governments as well).

Less rigid exchange rate regimes would have favored an earlier and more gradual adjustment of external disequilibria, isolating them better from the real shocks to which they were subjected (such as the fall in Japanese import demand, the crisis in the semiconductors sector, the fall in crude oil prices and the increased competition in export markets), and would probably have avoided the need to resort in some cases to sudden devaluations, that were perceived by markets as dramatic shifts in policies and whose effects were swiftly transmitted abroad. Nominal exchange rate rigidity, far from normally forcing virtuous adjustments in the behavior of workers, producers and inves-

²⁰ The IMS crisis of September 1992 also took place in a context of growing political uncertainty concerning the future of the newly-signed Treaty of Maastricht. It occurred after the negative result of the Danish referendum over ratification of this Treaty and just before a similar referendum in France that appeared likely to go the same way.

tors in national economies, or improving the coherence of government behavior and policies, have very often coexisted with, and in many cases generated, a propensity to finance externally the disequilibria emerging at home, and to postpone implementation of those changes in policies necessary to correct them.

Where sought, improvements in factor productivity, and through them reductions in previous losses in external competitiveness, do not appear to have been very significant. Real appreciations continued in practically all of the countries where crises erupted. Instead of improving, coherence in economic policies also worsened. Rigid exchange rates and capital mobility reduce monetary effectiveness while introducing the classical dilemma of the authorities' loss of control over interest rates and money demand. This dilemma and its effects in turn reduce the credibility of the fixed exchange rate commitment, at least if capital flows are not effectively managed. This pattern of effects emerged as important in the ERM crisis and was also reflected in the monetary flip-flops of Korea and Indonesia during the Asian crisis. Fixed exchange rates can also render domestic financial system (and enterprise systems as well) more fragile, given the inducement they offer to increased foreign exposure. This they appear to have done in Mexico and throughout Asia, thus increasing the vulnerability of national financial systems to changes in sentiments in capital markets. In the cases of Russia and Brazil rigid exchange rate regimes helped governments (central and in some cases local) finance part of their budget deficits abroad, as had fixed exchange rates previously in Mexico.

The links between financial systems and exchange rate regimes are quite complex, but exchange rate regimes affect the ways in which national financial markets work in some fundamental ways. When increasing financial fragility ensues from these interconnections, it goes to constrain macro-policies as well, and thus to aggravate the risks of currency crises. One feeds upon the other. Some of these relationships should have been known from theory and historical experience. Yet, even the clearest and most obvious lessons of past experience tend to be disregarded in the course of time. Each generation seems to learn only from the mistakes it makes and strictly from its own experience. That of the previous generations is generally discounted, and sometimes even ignored, despite the meritorious efforts of economic and financial historians to prevent such outcomes. The latest series of cri-

ses has at least had the positive effect of bringing certain known relationships again into clearer focus, while highlighting new ones.

The defense of a fixed parity, for example, often requires higher domestic than foreign interest rates, and limitations of some sort to capital flows to make this possible. In these circumstances domestic subjects have an incentive to finance themselves abroad, directly or through the domestic banking system, which can profitably borrow externally and lend internally. The exchange rate risk which should normally enter into the borrowing (and credit) equation and temper these incentives also tends to be ignored, being considered as implicitly or explicitly covered by the public authorities – a sort of subsidy granted through their promise to keep the exchange rate unchanged. Foreign borrowing is thus stimulated and often made without proper hedging of these risks.

When the authorities themselves directly borrow abroad – and they do so in the majority of cases to finance excesses of current expenditure over fiscal revenue²¹ – the implication that the private sector normally draws from it is of a strengthened public guarantee on exchange rate risks. The weight of such a guarantee is at the same time felt by foreign creditors, already inclined to lend because of the differential in favor of the interest rates of the countries that ask for credit, independently of their causes. In practice, they result from growing needs in public financing, restrictive monetary policies aimed at reducing domestic inflation or attempts made by the monetary authorities to sterilize the impact of previous inflows of foreign capital on internal credit. What matters, however, is that where they obtain, and given the promise of fixed pegs, foreign lenders do not fully consider exchange rate risks in their decision to extend credit, thus underpricing or oversupplying it.

Inevitably, the existence of large amounts of foreign debt, above all if short-term and at high rates, generates a demand for foreign exchange also to service it; this can become difficult to meet in the midst of crises, and it can generate panic waves in currency markets, especially when – in order to cover previously unhedged borrowings – domestic debtors demand foreign exchange 'at any price'. The dual of excess demand for foreign currency is excess supply of domestic as-

²¹ This occurred increasingly in Mexico in the course of 1994 with the emission of tesobonos denominated in US dollars, in Russia in the course of 1997 and 1998 with the issuance of GKO, and finally in Brazil.

sets, whose 'forced' liquidation becomes even more necessary when governments abandon pegs, the market prices of the domestic currency rise and the value of foreign liabilities increases in terms of domestic currency. The depreciation of the exchange rate contributes in such a way as to push down the prices of domestic assets, aggravating the distress already felt by the domestic financial system. Under the stress of sudden changes in national currency values, home enterprises exposed abroad transmit it to their banks and to the financial system at large. In certain instances this interaction can have devastating effects, greatly aggravating the domestic costs of currency crises, as was the case in Korea and Indonesia in the latter half of 1997 and part of 1998. It is not only the banks that suffer from it, given their reduced capacity to extend credit to clients because of decreasing liquidity, but enterprises – including those not directly indebted abroad – squeezed between loss of access to credit, assets whose values are declining in terms of domestic currency and declining profits due to falling real domestic demand.

Apart from weakening home financial systems when exchange rates begin to depreciate, the foreign debt of banks and enterprises contributes to scaring away foreign investors who, before or after the domestic ones, inevitably attempt to take out of the country all or part of their funds, thus aggravating the currency problems already at hand.

The most negative effects of these complex interactions can be pre-empted or mitigated by prudent behavior on the part of the authorities, such as accumulation of ample foreign exchange reserves, contraction of precautionary credits in foreign exchange, conservative management of domestic and foreign debt, prompt and adequate policy responses to emerging disequilibria in external payments, application of sound rules to domestic financial systems, careful supervision of domestic operators and adequate risk management by banks and other financial intermediaries. The monitoring and, in some cases, management of capital flows, especially short term ones, can also help, as it did in Chile in the 1990s.

In some instances aggravating factors may be at work, such as hidden relationships between political and economic powers, i.e. between government structures, political elites, banks and enterprises. The phenomenon of 'cronyism' or 'crony capitalism', symbolized by the political-economic relationships that became entrenched in the

Philippines under Marcos, has proved (or at least appeared) to be at work also in other Asian countries – from Korea to Indonesia –, and to amplify the negative effects of the implicit and explicit guarantees extended by the authorities to foreign investors on exchange rate risks and the solvency of national banks and enterprises.

Naturally, incentives to excessive risk taking on the part of domestic subjects borrowing abroad, and foreign subjects lending domestically, need to be reduced in order to lower financial fragility. Here better rules and regimes can help. Of the rules, those pertaining to transparency of standards, correctness of behavior, disclosure of information, redress of torts and regulation of bankruptcy take on particular importance for the good functioning of financial systems, which are more prone to inefficiency and failure when they do not obtain. Incentives to more proper and complete evaluation of investment risks come from improved information flows, reduced costs of acquisition and use of information, and better disclosure rules. These are important to reduce asymmetries in information and the consequent analogic decisions by investors. But incentives to the same effect also come from regimes, and from systemic rules applicable at the national and international levels. Critical among them are the exchange rate rules.

As already observed, fixed exchange rates or, more generally, exchange rate systems with very limited flexibility, have been a constant feature and a common factor in all the major currency crises occurring in the 1990s. The value of this lesson should not be lost. Greater attention to exchange rate choices made at the country level, and a significant tilting of the current balance among exchange rate regimes towards the more flexible ones, especially in those emerging countries where this is feasible and justifiable, are now becoming major priorities. So far, in the debate over the strengthening of the international monetary and financial system, there has been a tendency to concentrate on other aspects of the instability puzzle, leaving aside the exchange rate regimes on which the whole system rests. Similarly, at the official level, revisitation of exchange rate regimes is being largely neglected. This is a serious, possibly fatal, shortcoming of the current reform effort, which must be remedied. The need to tackle the exchange rate system in the reform effort is recognized by a growing number of observers (Bergsten 1998, Tobin 1998, Sachs 1998). Yet, this still remains a minority position.

4. Exchange rates and free capital movements on a world scale: what is compatible?

The conclusion that a greater flexibility in exchange rate regimes within the IMS is opportune in the current circumstances meets various objections. One most frequently advanced, especially in recent years, has to do with the feasibility of a movement in this direction given the instability flexible exchange rates would show with free capital movements and cross-border capital flows of ever growing size. The question the objection raises is whether – without any reduction in the variability of these flows – greater flexibility in exchange rate regimes would not also mean greater variability of market exchange rates.

One answer to this is to underline the point that, in any case, a flexible exchange rate regime should be more compatible with a situation of free capital flows than a fixed one, in both its greater capacity to absorb shocks and the lower loss of monetary effectiveness that it entails. In addition, flexible exchange rates should reduce the demand to manage international capital flows, which might be hard to satisfy at acceptable economic costs either locally or globally.

The answer most often received at this point is a radically agnostic one: that even in efficient markets no exchange rate regime – fixed or flexible – can function adequately in the presence of massive capital movements, and that in reality both types of regime are prisoners to this dilemma. Thus, no system of exchange rates, whether more or less flexible than the current one, would be able to absorb the shocks coming from international capital movements and alleviate the negative consequences deriving from them on the international monetary and financial system. The logical conclusion to this position is that it would be desirable, and probably even necessary, to reduce the flows of international capital through regulation or taxation.

Naturally, if reduction of capital flows on a worldwide basis proved impossible or highly undesirable, as is now argued even by those once sympathetic towards controls (Dornbusch 1998), the only alternative left would be to try to limit the fluctuations in the key currencies' market exchange rates through the joint action of the interested countries, which would have to shoulder the cost of the ensuing reduction of monetary independence the choice entailed. The at-

tion and efforts of a portion of the international political and financial establishment seem to be oriented in this direction in its advocacy of target zones (see, for example, Federal Ministry of Finance 1999).

The fluctuations that these plans would seek to reduce are those between the market rates of the currencies of the major industrial countries (dollar, euro and yen). The desirable direction of change for the exchange regimes of other currencies, especially those of the developing countries, is not specified. Thus, the proposals recently presented, if accepted, would reduce flexibility in exchange rates where it exists and has not constituted a major problem, without expanding it in those parts of the IMS where it is lacking, and where excessively rigid regimes have instead contributed to the creation of major problems, including exchange rate crises at times spilling over from one area to another.

In addition, even within the more restricted limits of the target zones now advocated by the German and Japanese authorities, all the issues regarding market price stabilization of any products would be reproduced. These are the familiar issues pertaining to commodity 'buffer stocks' or 'buffer funds', including those of their exposure to speculative attacks first raised systematically by Salant and Henderson (1978), and subsequently extended to a context of target zones by Krugman and Rotemberg (1990 and 1992). To obviate them, the fluctuation margins (the price bands) must first be realistically limited, then the means to defend them (the necessary reserves) procured, and finally a real capacity for policy coordination among members lastingly sustained (macropolicies in the case of exchange rate stabilization, production and export policies when the market prices of standard goods are to be stabilized). Fluctuation margins, moreover, must be swiftly adapted to changes in market circumstances, including those deriving from policy actions of third parties and other external events. Otherwise, the scheme does not acquire the needed credibility, or eventually loses it, and its effectiveness is reduced. In certain conditions its operation can create more instability in currency markets. Speculative attacks on target zones do not emerge in significantly different ways from those on fixed exchange rates. The credibility of regimes and expectations about future efforts to peg or float become key issues.

There are essentially two general responses that can be given to a problem of excessive instability in exchange rates deriving from the excessive variability of international capital flows, if verified empirically. The first is flexible exchange rates for large open economies individually considered, or for groups of economies having the right structural characteristics taken together, whether or not accompanied by a reduction in the quantities of international capital in circulation. The second is exchange rates managed by the governments of the relevant countries acting jointly or at least in concert. The target zone line tends in the latter direction. Markets would be left less leeway to determine exchange values of currencies and more weight than now would be given to the coordination of the policies – and above all the monetary policies – of the participating countries and to their concerted intervention in the currency markets in defense of the established margins of fluctuation, where necessary.

But even leaving aside the theoretical reasons that favor exchange rate flexibility as a systemic alternative (or at least as the prevailing norm) to fixity in the presence of capital flows,²² above all for those countries or groups of countries that by dimension, location or choice are less exposed to the outside from trade and capital flows, and are at the same time unwilling to accept a reduction in monetary autonomy, there remains to be considered the significance of the failure of the previous fixed exchange rate regimes, including the failures that occurred when capital flows were quite limited both absolutely and relative to the current ones, and in particular the ensuing experience with hybrid systems of exchange rates.

There is very little disagreement over the causes of the failure of the original Bretton Woods system of fixed exchange rates. In order to ensure full employment, member country governments showed a strong and fairly general propensity to disregard external disequilibria. Even a modicum of capital mobility rendered the fixed exchange rate unstable. A weakening anchor (the dollar) and (one way) speculation did the rest. Full employment and external equilibria under fixed exchange rate require adjustments in the parities (or help from the outside). When these do not occur in a timely way or are not enough to redress existing disequilibria, the system tends to become unstable (apart from being inefficient).

²² A recent review of the theoretical and historical aspects of the exchange rate question relative to capital mobility is offered by Dornbusch (1986).

As to the overall performance of the Bretton Woods system in the post-1973 period, however, opinions still differ. Instability of market exchange rates in the short run and exchange rate misalignments among the major currencies in the medium run have often been cited as major shortcomings. Yet, it would not appear that short-run variations in market exchange rates, although naturally much greater than in the period of fixed exchange rates that lasted until 1971, have been much greater than the variations in the underlying variables, such as interest rates and inflation. As to cyclical misalignments, they have occurred and were significant and persistent in certain periods. They were nonetheless reduced in extent, at times through concerted action of the authorities of the key countries, without bringing on major crises, and apparently without major losses in terms of trade flows despite the positive relationship between exchange rate misalignments and trade protectionism that seems to exist at least in the industrial countries (Grilli 1988). There were probably costs, but world trade growth was not critically inhibited.

Different, and potentially much more important, conclusions are reached by those examining the most recent period of Bretton Woods history in the light of the expectations that floating exchange rates had raised, in particular for their insulating effects on macro-policies. According to Askari (1999), who thoroughly re-evaluated the Bretton experience in this light, the main problem encountered was that floating exchange rates, where applied (i.e. among major industrial country currencies), did not ensure independence of monetary policies, the reasons for this lying in real wage rigidities, lack of policy credibility and speculation. Hence, logically enough, the need for some management of the most important exchange rates. Yet, only relative effectiveness can be expected for monetary policy in any context where floating of the exchange rate is far from unimpeded and capital mobility still less than perfect. And these have been the norms since 1973. The extent and effects of speculation are harder to evaluate, and remain more uncertain in this period as well. But to pin the whole argument of the relative ineffectiveness of monetary policy on speculation would seem unwarranted.

Even wishing to compare available exchange rate alternatives in less stark terms, for example between greater or smaller exchange rate flexibility, with target zones as the lower limit, it is impossible to abstract from at least two considerations. The first has to do with the

conditions necessary for the proper functioning of any set of objective limits to the exchange rates formed in currency markets which, in essence, are not different from those necessary in systems of fixed, but adjustable, exchange rate such as the Bretton Woods' was up to 1971. In the first place, there must be the will and ability of the governments of participating countries to coordinate their policies, especially fiscal, to ensure that the main macro objectives are reached. Secondly, monetary policies should also be coordinated to keep interest rates across countries within ranges consistent with stability in the foreign exchange markets. There might be economic costs involved in this coordination requirement. There would certainly be non-marginal political costs to it. Finally, speculation would remain a problem, presumably much greater than under more flexible rates.

The second consideration to be made concerns the need for processes through which the limits put to the fluctuations of market exchange rates can be evaluated in terms of their desirability and sustainability. There must also be a system available by which the necessary political consensus among the key players can be shaped in order to arrive at the important decisions that have to be made in time, especially when changes in the fluctuation bands prove necessary. Finally, there must be credible and effective means to keep market rates in place when fundamentals so justify it. These are exacting conditions to reach and maintain. To make them less demanding, economically and politically, the normal temptation is to dilute the need for them with enlargement of the fluctuation bands or softening of margins, or frequent adaptation of them to market conditions. But then the target zones would not differ significantly from indicative market zones, and would become virtually identical to a floating system. At best, even their short-run stabilization benefits would be drastically reduced.

5. Some conclusions

Exchange rate regimes are important for the efficiency and stability of both national economies and the international monetary system. They also have a lot to do with the financial stability or lack thereof in individual economies and in international financial markets. There

are important, if complex, interactions between exchange rate regimes and financial market outcomes.

Reform of the IMS after the protracted episodes of instability witnessed in the 1990s has become more urgent, and is also increasingly being perceived as necessary. To be effective, such a reform should address the issue of exchange rate choices by members. Theory and experience offer little support for a return to a common exchange rate system for all countries. A differentiated regime is both more justifiable, given the substantial differences that exist among economies, and politically more feasible than a uniform one.

Yet, a case can be made for the need to move the current 'free choice' norm, where exchange rates of IMF members are concerned, to a more structured one, in which decisions concerning exchange rate regimes would reflect more objective criteria than in the recent past and be more thoroughly evaluated and scrutinized for their effects. The external effects of decisions concerning exchange rates, looming ever larger as the international economy becomes more financially integrated, should specifically be taken into account both at the outset and in the subsequent stages. If not specifically sanctioned by the membership at large, exchange rate decisions must at least be collectively evaluated by the IMF in a clear and systematic fashion (i.e. against pre-specified criteria and policy norms).

A desirable direction for reform in this area is, we believe, a push towards greater exchange rate flexibility among the developing countries, while reduction of flexibility for the exchange rates of the major industrial countries' currencies should be avoided. In order to shift the fulcrum of the current IMS towards greater flexibility in exchange rates attention must be focused on a few large, relatively diversified emerging economies, in need of foreign capital and capable of absorbing it, where financial systems are strengthening (or can be improved in the relatively short term) and the internal capacity to withstand real external shocks needs to be enhanced. Such countries are India, China, Pakistan, Poland, Egypt, Algeria, Morocco, and eventually others such as Nigeria. It would also be essential to keep South Africa, Mexico, Russia and Brazil on flexible exchange rates.

This would be an evolutionary movement, and could be implemented through collective advice, persuasion and more structured IMF surveillance.

The smaller, more open, less diversified and financially weaker developing countries that are in any case prevented by need and size from opposing capital flows should be oriented towards fixed exchange rates, but with their anchors guaranteed, or at least made more credible, by appropriate institutional arrangements, such as currency boards and the right sort of connections with single countries or monetary areas. Otherwise, free floating and capital flow management become for them a reasonable (if probably more costly) alternative. It is fixed exchange rates, open to discretionary adjustment by national authorities, that are least desirable for them in present circumstances. Without sufficiently certain – bilateral or multilateral – support to add strength and credibility to the commitments undertaken, the national authorities would be obliged to accumulate disproportionately large reserves, as did Hong Kong and Taiwan in the 1980s and 1990s, or shoulder the burden of higher domestic interest rates, incompatible with capital openness and hardly conducive to growth.

The present system of international monetary and financial relations calls for further significant changes. To make it more stable and efficient, cross-border investment decisions must take place on the basis of more direct knowledge and more independent evaluation of risks. There is a need to enhance information flows to the financial markets. They must be larger and of better quality than they have been so far. They must also come to investors at lower costs, and be adequate in variety and reliability. Hence the need for improvements in the availability of information, for the introduction of common or largely comparable standards, for transparency of information regarding both public and private sector outcomes, for the right institutional organizations to perform surveillance on financial sectors, and for better regimes providing the right incentives to market agents and government authorities. Among these, flexible exchange rate systems are of critical importance for the inducement they provide to borrowers and lenders to consider risks more fully in their decisions, and to governments not to over-guarantee financial transactions involving the foreign sector.

These two sets of changes are, therefore, highly complementary. They reinforce each other in critical ways. One without the other runs the serious risk of being insufficient to the purpose of making the international monetary and financial system more stable and more reliable. By reducing information asymmetries and transaction

costs in acquiring and managing information while improving risk evaluation, the functioning of national and international systems can be enhanced, and the risk of market failures – and thus the potential for instability – limited. Reduction of inducements to overborrowing abroad and overlending from abroad goes in the same direction as reducing market failures, limiting the emergence of serious financial vulnerabilities and thus the creation of conditions in which speculative activity can occur or increase. Exchange rate changes, in turn, can improve the speed, reliability and effectiveness of external adjustment, thus preventing the emergence of macroeconomic vulnerability.

There are other avenues that could be helpful in organizing a global exchange rate regime where the stability achieved could be even greater than in the variant of the current hybrid system advocated here. One is monetary areas, in both developed and developing countries, to which the small open economies in either camp could anchor their exchange rates. A limited number of them would presumably be established, and as long as flexibility of exchange rates was maintained among them, adjustments in their reciprocal balances could take place with sufficient efficiency and gradualism. Capital could flow freely within each of them and between them, without creating much risk of instability given their sizes and their enhanced capacity to absorb capital flows, and if necessary to manage them. However, monetary areas are not 'here', and the need to get from 'here' to 'there' with minimum losses cannot be disregarded. Indeed, it remains today's great challenge.

REFERENCES

- ARGY, V. (1990), "Choice of exchange rate regime for a smaller economy: a survey of some key issues", in V. Argy and P. De Grauwe eds, *Choosing an Exchange Rate Regime*, International Monetary Fund, Washington.
- ASKARI, H. (1999), "Twenty-five years of post-Bretton Woods experience: some lessons", *Banca Nazionale del Lavoro Quarterly Review*, vol. 52, no. 208, pp. 3-38.
- BANK OF INTERNATIONAL SETTLEMENTS (1993), *63rd Annual Report*, Basel.
- BERGSTEN, C.F. (1998), "Missed opportunity", *The International Economy*, vol. 12, no. 6, pp. 26-27.
- BRUNO, M. (1991), "High inflation and the nominal anchors of an open economy", *Princeton Essays in International Finance*, no. 183.

- GROUP OF 10 (1997), *Press Communiqué on the Prevention of Financial Instability in Emerging Countries*, Washington, April 28.
- GROUP OF 22 (1998), *Report of the Working Group on Strengthening Financial Systems*, Washington.
- KAMINSKY, G., S. LIZONDO and C. REINHART (1998), "Leading indicators of currency crises", *IMF Staff Papers*, vol. 45, no. 1, pp. 1-48.
- KINDLEBERGER, C. (1996), *Manias, Panics and Crashes*, Macmillan, London, 3rd ed.
- KRUGMAN, P. (1996), "Are currency crises self-fulfilling?", in B.S. Bernanke and J.J. Rotemberg eds, *NBER Macroeconomics Annual*, Cambridge University Press, Cambridge.
- KRUGMAN, P. and J. ROTEMBERG (1990), "Target zones with limited reserves", *NBER Working Paper*, no. 3418, Cambridge, Mass.
- KRUGMAN, P. and J. ROTEMBERG (1992), "Speculative attacks on target zones", in P. Krugman and M. Miller eds, *Exchange Rates Targets and Currency Bands*, Cambridge University Press, Cambridge.
- IMF (1997a), *IMF Survey*, no. 8, April 21.
- IMF (1997b), *IMF Report*, May 12.
- IMF (1997c), *World Economic Outlook*, Washington, October.
- IMF (1998), *Report of the Managing Director to the Interim Committee on Strengthening the Architecture of the International Monetary System*, Washington, October.
- IMF (1999), *IMF-Supported Programs in Indonesia, Korea and Thailand: A Preliminary Assessment*, Washington.
- MCKINNON, R.I. (1963), "Optimum currency areas", *American Economic Review*, vol. 53, no. 4, pp. 717-25.
- MCKINNON, R.I. (1984), *An International Standard for Monetary Stabilization*, Institute for International Economics, Washington.
- MUNDELL, R. (1961), "A theory of optimal currency areas", *American Economic Review*, vol. 51, no. 4, pp. 657-65.
- OBSTFELD, M. (1995), "International currency experience: new lessons and lessons re-learned", *Brookings Papers on Economic Activity*, no. 1, pp. 119-220.
- OBSTFELD, M. and K. ROGOFF (1995), "The mirage of fixed exchange rates", *Journal of Economic Perspectives*, vol. 9, no. 4, pp. 73-96.
- RODRIG, D. (1998), "Who needs capital account convertibility", in S. Fischer *et al.*, eds, pp. 55-65.
- ROSE, A. and L. SVENSSON (1994), "European exchange rate credibility before the fall", *European Economic Review*, vol. 38, no. 6, pp. 1185-216.
- SACCOMANNI, F. (1999), "Coping with international financial crises: the G-7 Approach", Bank of Italy, mimeo.
- SACHS, J. (1998), "Stop preaching", *Financial Times*, November 5.
- SALANT, S. and D. HENDERSON (1978), "Market anticipation of government policy and the price of gold", *Journal of Political Economy*, vol. 86, no. 4, pp. 627-48.