What Did You Learn from the International Financial Crises In the 1990s, Daddy?

Opening Remarks by Governor, ECCB,
Sir K Dwight Venner

We meet for this the 8th Sir Arthur Lewis Memorial Lecture at a time which can only be described in the language of today as extremely challenging.

The geopolitics of the war on terrorism threatens to reverse or at least hold up the momentum to the movement of commodities, services and people across national boundaries. The increase in regulatory regimes can even be seen to be more politically inspired because of the need to monitor the flows of money which could finance terrorist activity, as well as to prevent a recurrence of such corporate scandals as those surrounding Enron and WorldCom.

Our patron saint, Sir Arthur Lewis might not have envisaged such conditions, but his approach to them would have been the same – meticulously methodological, utilising his knowledge of general and economic history, pragmatic and, humanistic. He would, as always, have considered the impact on his region, the Caribbean. Above all, he would have assured us that there was always a human solution based on a long view of history and the human spirit.

Such men are surely needed now, not only in the Caribbean, but in the international community. It is interesting to note a marked difference between this and other epochs of crisis, that is, the marked absence of great leaders. Or rather, to be very careful, as central bankers ought to be, the ostensible and apparent lack of great leaders.

This in itself is very intriguing in an age which is also ostensibly and apparently so open and transparent. Let me refer to two very significant examples which have had such an outstanding impact on the world.

The first was the framing of the American Constitution in 1776. The assembling of such an array of great men has not recurred in American history since that auspicious occasion, described as the decision of Philadelphia. George Washington, Thomas Jefferson, who was not physically there but whose spirit was, Benjamin Franklin, Alexander Hamilton, James Madison, John Adams, et al.

The other was the period from 1944 onward with the second world war coming to an end. Great politician statesmen such as Churchill, Roosevelt, and Truman; soldier statesmen – Eisenhower, DeGaulle, Marshall, and John Maynard Keynes, scholar, policy maker and man of affairs.

We in the Caribbean have also had our purple patches on the way to adult suffrage, and independence – Williams, Manley, Bustamante, Adams, Bird, Bradshaw, Barrow.

Inspiring this process first from London and then in the Caribbean and providing the intellectual platform for social, political and economic change, was Sir William Arthur Lewis.

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His major contributions intellectually were in such articles as "Labour in the British West Indies" and "The Industrialization of the British West Indies". At the end of the failed federal experiment, he wrote "The Agony of the Eight", cataloging the plight of the smaller islands.

This last trail inspired the creation of the two fundamental arrangements which have kept the smallest islands in the Caribbean afloat, namely:

- The Treaty of Basseterre, creating the Organisation of Eastern Caribbean States in 1981, and

- The Agreement establishing the Eastern Caribbean Central Bank in 1983.

We also see the influence of Lewis as inspirational leader through his work as Vice Chancellor of the University of the West Indies, and President of the Caribbean Development Bank. He was the first of the illustrious scholar policy makers in the region and provided the bridge between the founding fathers of the region and such luminaries as Shriddath (Sonny) Ramphal, William Demas, Alister McIntyre and Arthur Brown. They were followed by intellectual giants like, Lloyd Best, Rex Nettleford, George Beckford, Clive Thomas and Walter Rodney.

Lewis was also the first Nobel Laureate from the Caribbean and he was followed by two other Caribbean men of letters; his countryman Derek Walcott and V. S. Naipaul.

Leadership in this modern era is, and probably should be, more diffused throughout our societies at the levels of the community, business, trade unions, schools and educational institutions. This is not to dispute the special place of democratically elected officials in liberal democratic societies. It is simply to assert that responsibility must be shouldered by all members of society, and that being elected does not shift this responsibility in a disproportionate way to the detriment of the body politic as a whole.

Lewis was very clear on this question, as he stated unequivocally that in the final analysis our future lay in our own hands, both as communities and as individuals.

We are very pleased to have with us to deliver the 8th Sir Arthur Lewis Memorial Lecture, a distinguished scholar and policy maker, Professor Alan Blinder, a former colleague of Sir Arthur at Princeton University.

Professor Blinder is the Gordon S. Rentschler Memorial Professor of Economics and Director of the Center for Economic Policy Studies at Princeton University. He served as Vice Chairman of the Federal Reserve System under Alan Greenspan from June 1994 to January

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1996. He also served on President Clinton's Council of Economic Advisers from January 1993 to June 1994.

Professor Blinder's wide and varied experiences in the public and private sectors are especially appropriate for us at this critical period in our economic history. This is a period when our policy makers at both the political and technocratic levels are facing challenges both domestically and internationally which are, to say the least, unlike anything we have had to face in our past experiences.

Professor Blinder's resume, which you have, cannot begin to give you the full range of his influence both in the United States and internationally. His text book, "Economics: Principles and Policy", co-authored with Arthur Lewis's close personal friend and colleague, William Baumol, has influenced millions of students around the world including the Caribbean where it is a standard text at the University of the West Indies.

His Robins lectures on Central Banking are a classic in the field and provide much inspiration and guidance to us in this institution.

It is therefore with great pleasure that I ask Professor Alan Blinder to deliver the 8th Sir Arthur Lewis Memorial Lecture.

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The Way We Were

Please do not be alarmed by my title. This lecture is not a set of personal reminiscences; I mean "you" to be a plural pronoun—and to include mommies, too. My intent is to consider some of the major lessons that economists, public officials, and market participants have or should have learned from the exciting and often perilous international financial experience since, say, 1992. While there are certainly elements of continuity with earlier decades, I believe the school of hard knocks has been a great, though hardly perfect, teacher and that most of us now look at the international financial world differently than we did a decade or so ago.

Let me begin with a few things we already knew quite well in 1992, but which were given some notable exclamation points by the tumultuous events of the following ten years.

First, we had already concluded by the 1980s that floating exchange rates were likely to be quite volatile in practice. Those of you old enough to remember the fixed-versus-floating debates of the 1960s and 1970s know that there was some question about whether floating rates would prove to be highly variable, like equity prices, or relatively stable, like the prices of shoes. By the mid 1980s, the jury had reached an unambiguous verdict on that question: Floating exchange rates not only gyrated markedly from day to day, they were also subject to substantial and long-lasting misalignments.[1] The 1990s certainly did nothing call this verdict into question.

Second, we have known for some time that the international financial system is vulnerable to crises: exchange rate (or balance of payments) crises, liquidity crises, crises of confidence, banking crises, and so on. However, I doubt that many people who thought seriously about international finance in 1991 anticipated the frequency and intensity of the crises that would characterise the turbulent decade from 1992 to 2002.

Third, and really a subhead of the second point, we knew in the 1980s that actual (under floating rates) or incipient (under fixed rates) exchange rate adjustments contribute importantly to international financial crises—sometimes as proximate cause, sometimes as propagation mechanism.

The stunning events of the 1990s served to remind us of these things—which we already knew—and to give them greater emphasis. There were many such events:

- The European Exchange Rate Mechanism (ERM) suffered through two serious crises in the summers of 1992 and 1993, coming through it all a bit bloodied (e.g., with extremely wide bands and without the lira and the pound), but alive.

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- Despite the difficult gestation period, the euro and the ECB were in fact launched on schedule in January 1999, proving that it is actually possible for sovereign nations voluntarily to form a monetary union—an important case in point for the Caribbean nations.
- A series of severe and fast-moving financial crises rocked the emerging markets, starting in Mexico in 1994-1995, rumbling through Southeast Asia in 1997, reaching Russia in 1998 and Brazil in 1999, and continuing into Argentina and Turkey in this decade. Many other countries were adversely affected by the spillovers from these crises.
- One of these crises (Russia), helped along by the travails of the giant (and poorly hedged!) hedge fund, Long Term Capital Management, seriously infected capital markets in the rich countries as well, bringing the world financial system to the precipice in the fall of 1998.
- Argentina's decade-old currency board teetered and then crumbled under speculative attack at the end of 2001, leading to a collapse of the peso and ushering in a severe recession.
- G3 exchange rates exhibited extremely large movements, though not as large as those of the 1980s. During the decade, the dollar fell from about 160 yen in 1990 to a low barely above 80 yen in 1995. It then rose back to about 145 yen in 1998 and now sits around 110 yen. Against the German mark, the dollar declined from over 1.7 marks in 1990 to below 1.4 marks in 1995, before rebounding to over 2 marks in 1999 (by which time the mark was tied to the euro.). In its brief existence to date, the euro itself fell nearly 30% against the dollar and then gained back most of the loss.

So what have we learned, or come to believe, during these years that is relatively new? I have chosen seven lessons.

Lesson 1: The Center May Not Hold

The term "intermediate" exchange rate regime refers to systems that fall between the two poles of pure floating and inviolable fixity. One example of such an intermediate regime is a heavily managed float. Another, more common example is a conventionally pegged (usually to the dollar) exchange rate—like the ones Mexico, Brazil, and South Korea, to name a few, all had before their currency crises. Such systems were more popular in the 1980s, and not without reason. As Frankel (1999) has pointed out, there are advantages and disadvantages to both fixity and floating. So general microeconomic optimisation principles create a presumption that the optimal exchange rate regime should be found somewhere in the middle.

But experience in the 1990s led to a radical rethinking of this position and, it seems, to a sharp change in fashion. I think of this development as the coming of age of Mundell's impossible trinity: the fundamental insight that a nation cannot have high capital mobility, a fixed exchange rate, and an independent monetary policy all at the same time. In the 1970s, capital

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mobility was far from perfect even among the leading countries, and it hardly existed between the industrial countries and the developing world. So the trinity, while lurking in the background, was of secondary importance. Mundell notwithstanding, *relatively* fixed exchange rates coexisted easily with *relatively* independent monetary policies.

Today's world is quite different. Capital mobility within the rich countries has increased substantially since the 1970s, and may now be approaching the Mundellian limit of "perfect" capital mobility. While capital mobility between rich and poor countries still falls far short of perfection, it has increased dramatically—and has changed form. The largest North-South financial flows of the 1980s generally took the form of illiquid bank loans, often to sovereign governments. Only in the 1990s did capital markets assume the primary role of funneling capital to emerging markets—a point to which I will return.

If we take a high degree of international capital mobility as a given nowadays, it follows that a country can have *either* a fixed exchange rate *or* an independent monetary policy, but not both.[2] In fact, the speed and magnitude of capital flows have led many academics and policymakers to conclude that intermediate exchange regimes are either not viable or inadvisable (or both). This theory is sometimes known as "the vanishing middle", or "the corners hypothesis". It's the idea that a country should either let its currency float or cement it in place with a "hard peg" such as a currency board, monetary union, or dollarisation;[3] intermediate regimes should be avoided. While there are some notable academic dissenters,[4] this idea—which was hardly even discussed before the 1990s—seems to have become the new orthodoxy.[5]

Is it correct? Mostly, in my view—and for precisely the reasons just mentioned. When events conspire to render a pegged currency overvalued, as will sometimes happen, capital will flow out. The outflow may be a trickle at first, but it is liable to turn into a torrent as both domestic and international holders seek to protect themselves from a devaluation, the probability of which is seen as rising. Once capital starts fleeing *en masse*, maintaining the pegged exchange rate will deplete the central bank's reserves and test the government's resolve. Notice the crucial role of the probability of devaluation in this argument. With a truly inviolable peg, the theory goes, devaluation would be seen as impossible, or nearly so, thereby obliterating the central motive for capital flight.

Is that true? Experience to date is far too scant to give a definitive answer. Even before it entered into Stage III, the EMU seemed to put an end to speculative attacks against weaker currencies like the lira, and interest rates converged sharply. That is the good news. But even countries with highly credible currency boards, like Hong Kong and (formerly) Argentina, have seen sizable premiums over U.S. rates creep into their interest rates at times of stress, presumably reflecting some probability of devaluation. As to dollarisation, there is too little evidence to generalise on, since only a few small countries have tried it so far.

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So I conclude that national monetary authorities, international institutions like the IMF, and academic economists are all well advised to take the theory of the vanishing middle seriously. This is not something many people would have said a decade ago.

Lesson 2: Beware The Fixed Exchange Rate Bubble

One particularly bitter lesson of the 1990s is that currency devaluations in emerging-market economies are *not* expansionary—in sharp contrast to the teachings of the textbooks. Students in the United States, Japan, and Europe learn that currency depreciation boosts exports, and therefore aggregate demand. But Mexico, Thailand, Malaysia, Indonesia, Korea, Russia, and Argentina, to name a few, all suffered severe slumps, not booms, after major devaluations. Why? What went wrong? The exports of these countries did rise, just as the textbooks say. But that expansionary factor was overwhelmed by far more powerful contractionary forces. Principal among them, I believe, was the decimation of balance sheets that occurs when the burden of foreign-currency-denominated debt soars following a devaluation.

This unhappy chain of events called our attention to a phenomenon that I have dubbed "the fixed exchange rate bubble".[6] It works like this. Banks and corporations in emerging markets come to think of the peg as permanent. So, for example, a Thai bhat is taken to be just another name for four U.S. cents. With dollar interest rates temptingly low compared to home-currency interest rates, Thai banks and companies borrow heavily in dollars and lend the proceeds in local currency (or invest in local assets) — thereby creating a severe currency mismatch. That practitioners often refer to this shell game as "the carry trade" captures the delusion quite well, for betting against (uncovered) interest rate parity is hardly riskless. At some point, of course, the bubble bursts, the home currency plummets in value, and domestic balance sheets are destroyed as liabilities soar relative to assets.

Some critics of the foreign exchange rate bubble point out that believers in such a bubble must be imputing a form of irrationality both to emerging market borrowers and to their creditors.[7] They are right. I confess, and I am enrolling in a 12-step program to overcome this flaw in my character. But there is one big problem: the more I watch actual, as opposed to theoretical, financial markets, the harder it is for me to get past step one. As Fischer Black pointed out some years ago, financial markets look more rational from the banks of the Charles than from the banks of the Hudson.

Other critics observe that people who urge emerging-market countries to borrow in their own currencies are implicitly urging them to borrow less. That is also true. If the perceived cost of credit is higher, the volume of borrowing will presumably be lower. But, if you believe in the fixed exchange rate bubble, that is precisely what you want—a return to sanity, in which borrowers face up to the true cost of credit.

However, I do take issue with a more extreme version of this criticism, sometimes called "original sin",[8] which holds that it is *impossible* for emerging-market nations to borrow in

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their own currencies. On the contrary, I believe their capacity to borrow in domestic currency, at least in normal times, has been badly underestimated. Players in global financial markets have willingly taken on all manner of huge—and sometimes downright weird—risks over the years. Are we really to believe that hedge funds that shorted palladium to go long on Russian GKOs would not purchase debt denominated in Korean won at any price? For years, South Africa stood as a prominent example of a poor country with many daunting problems that nevertheless borrowed mainly in its own currency. And they generally did so at real interest rates not much above those paid by the U.S. Treasury. (Nominal rates were higher in South Africa, but so was inflation).

No, Hausmann's developing nations were not born into "original sin". Those that have bad financial reputations acquired them as a result of a wayward youth. So it will take evidence of good adult behavior to get people to forget their unsavory pasts. But it can be done.

Lesson 3: For Most Countries, Floating Is Better Than Fixed

The corners hypothesis (Lesson 1) does not tell a country whether it is better to float its exchange rate or to commit to fixing it. Here, much of the voluminous older literature on fixed versus floating rates is directly relevant. While that stuff is old-hat, I nonetheless put the superiority of floating on my list of seven lessons because it seems to me that recent events have tilted the scales sharply in that direction.

Where capital is mobile, the fixed exchange rate bubble is, to my mind, the most important new aspect of the age-old debate. The lethal interaction of an allegedly pegged exchange rate with excessive borrowing in foreign currency (and highly mobile capital) was at the heart of virtually every emerging-markets crisis of the past decade.

But events have also underscored the importance of a few things we have known for years. In that context, I want to mention two of the old arguments for why a fixed exchange rate regime is likely to end badly. The first is the familiar asymmetry point that even beginning students are taught: Countries that lose reserves are ultimately forced to devalue (think of Argentina), while countries that gain reserves are not forced to revalue upward (think of China). The second old argument holds that intelligent exit strategies are unlikely to be adopted because it is virtually impossible to persuade a finance minister to switch to floating when his currency is not under pressure. Both of these arguments predict that fixed exchange rate regimes will end badly—with large, disruptive devaluations. And both, I would say, received strong support from the events of the last ten years.

Lesson 4: However, Truly Fixed Exchange Rates Can Work

Hong Kong's currency board has been operating successfully for 20 years.

Argentina's lasted about a decade. Each of these real-world cases demonstrates that a country with numerous trading partners can make a currency-board arrangement work, at least for a while, if it tries very hard. A country (or region) with one dominant trading partner (such as the Eastern Caribbean federation) should have an easier time of it. What it takes to keep a currency board intact, of course, is a large volume of reserves,[9] a sound banking system, and the political will to hang in there when the going gets tough. Hong Kong let its domestic interest rate top 500% at one point during the 1998 financial crisis. Argentina struggled through two severe recessions—one following the Mexican crisis in 1994-1995, the other after the Brazilian devaluation in 1999—rather than unpeg the peso. These two episodes were costly to Argentina's beleaguered citizens, but the government paid the cost in order to boost the credibility of its currency board.

My point here is not to advocate currency boards—I am not, in fact, a proponent, except under exceptional circumstances—but merely to observe that experience in the 1980s and 1990s has proven that they can be established from scratch and, under the right conditions, endure. Notice, however, that neither the Hong Kong nor the Argentine currency board was created to reap the classic gains from fixed exchange rates (e.g., to reduce cross-border transactions costs and facilitate international trade). Hong Kong opted for a currency board when the reality of its ultimate reversion to Chinese rule threatened financial stability. Argentina adopted a currency board as part of a highly successful campaign to end inflation. Both were efforts to gain credibility quickly—to make investors believe their currencies were “as sound as the dollar”. The Eastern Caribbean system, as I understand it, comes closer to the classical mold.

While a currency board is a pretty hard peg, it is not inviolable because the arrangement can be terminated any time the authorities choose, or are forced to abandon the peg. That is, presumably, why interest differentials persist despite currency boards. Either "dollarisation" or the merging of several currencies in a monetary union takes the next step by literally abolishing the domestic currency. Despite widespread skepticism over whether it would actually happen, 11 of the 15 members of the European Union did precisely that. And if 25-30% depreciations and appreciations don't bother you too much, the enterprise must be accounted a success to date. Unlike a currency board, a monetary union should end all interest-rate disparities except for small premia due to default risks. That has, of course, happened within the EU.

The birth of the euro on schedule demonstrated both the technical and political *feasibility* of forming a monetary union under the right conditions. However, the *advisability* of forsaking the freedom to change your exchange rate is another matter entirely. It will be years before anyone can render a judgment on that question. Clearly, the British, the Swedes, and the Danes are not yet convinced.

Lesson 5: Crises Are Harder To Handle In The Brave New Financial World

Financial crises and contagion are nothing new. But during the 1990s, international financial institutions like the IMF, the U.S. and other governments, and market participants all learned

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that crises can be much harder to deal with in the new world of capital-market finance than in the old world of bank-dominated finance. (Not that they were so easy to resolve in the old regime!).

Old-style emerging markets financial crises would develop when bank loans and bank attitudes toward LDC lending started to sour. It would be a grotesque exaggeration to say that such crises built up gradually and were therefore easy to foresee. They were not. But the new-style, market-based crises do seem to arise more suddenly, less predictably, and to move at greater speed. That, in itself, poses severe challenges to the authorities, for governments are not designed to react as quickly as markets.

But more than speed is at issue. The difficulty of coordination poses a far deeper problem. In the old days, regulators could gather most of the lending banks in one room (either literally or figuratively), where they could be cajoled or coerced into agreeing to a standstill, an orderly workout, or even new lending—as Paul Volcker and Jacques de Larosiere famously did during the Latin American debt crisis in the 1980s. Again, it would be a gross misreading of history to say that such negotiations were easy. But at least they were feasible—you knew with whom you had to deal.

Modern, market-based crises are starkly different. The debt securities of a troubled nation may be owned by hundreds or even thousands of relatively anonymous investors, many of whom hold small stakes and therefore have little incentive to offer concessions that might facilitate an overall settlement. Today's crisis managers cannot even identify the members of the creditor class, much less make a deal with them.[10]

Sharp drops in market prices (including the exchange rate) are disruptive and damaging enough. But when much of the debt is short term and needs to be rolled over frequently, a country (or its banks or businesses) may find itself literally starved for liquidity unless official assistance fills the financing gap. Such was the case, for example, in Mexico, Thailand, Indonesia, and Korea. But large-scale official assistance strains both the available resources and the political will. It also creates moral hazard problems which, while often exaggerated, are nonetheless present.[11]

It seems clear to almost everyone that the remarkable transformation of the nature of lending to emerging markets requires the international fire brigade to change its *modus operandi*. And so the economic elites have been discussing how to overhaul the international financial "architecture" since 1995—though with only a few concrete results to date. I turn to this issue now, under the last two lessons.

Lesson 6: The IMF Should Overhaul Its Rescue-Mission Procedures

First, let me state clearly that not everyone agrees that IMF procedures require a major overhaul. The IMF has its defenders who, while admitting that mistakes were made here and

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there, insist that the basic approach is sound, so that no more than a little tweaking of existing policies is necessary. I am not one of them. But neither do I believe that the IMF is run by a bunch of wrong-headed bureaucrats who make systematically foolish decisions. I guess I'm a middle-of-the-roader who thinks that some changes in the IMFs way of doing business are in order.

I begin with an important point than is often neglected: In designing rescue packages for emerging market nations, the IMF should give greater weight to the plight of innocent bystanders—especially poor people who had no part in the financial excesses that precipitated the crisis. It would be grossly unfair to say that the Fund ignores such people; it does not. But you begin to appreciate the problem when you consider the budgetary situation of a nation seeking IMF help in the aftermath of a financial crisis. Interest rates will have soared, thereby raising debt service burdens enormously. The economy will almost certainly be contracting rapidly, eviscerating tax revenue. At the same time, the financial debacle is likely to have blown a big hole in the budget by saddling the government with substantial new bills for, e.g., cleaning up the banking system. Now the IMF rescue team arrives, insisting that the overall budget deficit be reduced to below pre-crisis levels. How, in the midst of such a budgetary squeeze, can a poor country maintain, much less increase, social spending? I fear the answer is straightforward: It cannot.

So one important lesson, I submit, is that the IMF should—indeed must—pay more attention to the plight of the poor who, even though they play no role in financial crises, still suffer mightily when the bubble bursts.

Holes in the social safety net are an unintended, but almost inevitable, consequence of fiscal austerity—which brings me to a broader point. As you can probably tell, I sympathise with critics of the IMF who claim that the Fund is excessively enamored with fiscal and monetary austerity. Now, I do understand that there is a time and a place for tight budgets and tight money--after all, I was once a central banker! The Latin America crises of the 1980s, on which the modern IMF cut its teeth, were perfect examples. When high inflation is generated by large budget deficits financed by printing money, cutting the budget and slowing the printing presses is precisely the right prescription. One could argue that Russia in the 1990s fell into this category, making similar advice appropriate.[12] But inflationary finance of fiscal deficits was not central to Mexico’s problems in 1995, and it was almost entirely absent in Southeast Asia in 1997. So why was the IMF’s advice so similar?

I thus suggest that another important lesson of the 1990s is that the IMF should think twice before reflexively prescribing austerity.

Even if the point about fiscal policy is grudgingly accepted,[13] the IMF and its defenders will argue that easing monetary policy in the midst of a currency crisis is a recipe for an even bigger depreciation. You don't defend your currency by lowering interest rates, do you? No, you don't. But a few points should be made on the other side.

First, there will be much less need to prop up exchange rates in a world in which countries have learned Lesson 3 (don't peg your exchange rate) and Lesson 2 (borrow much less in foreign currency). Currency depreciations will be less painful, and will therefore stand a better chance of being expansionary.

Second, many emerging market currencies are traded in markets that are thin enough that sterilised intervention might work. Intervening, say, in the dollar-bhat market is not like trying to manipulate the dollar-yen exchange rate. It is not only the size of the market that is relevant to the feasibility of sterilised intervention, the degree of substitutability matters, too. I submit that U.S. Treasury securities and Thai government securities are far from perfect substitutes in the eyes of investors. So it is far from crazy to think of maintaining lower interest rates at home while propping up your currency value in the international market—provided you have sufficient reserves to do it.

Third, I would argue that you do not inspire confidence in either a country or its currency by pursuing monetary policies that are so tight that business activity contracts violently. This last point is worth exploring further, for a quick look at some numbers shows that the tradeoff between losses from bankruptcy and interest rate gains is quite skewed.

Suppose an investor sees the probability of, say, a 100% capital loss within a month rise by just 5 percentage points because of a recession.[14] If the interest rate alone is to compensate him for this expected loss of principal, the *monthly* interest rate will have to rise by about 5 percentage points, implying an increase in the annualised interest rate of more than 80 percentage points under risk neutrality--and even more under risk aversion. But wait. Won't a reduced expected rate of currency depreciation substitute for part of the interest rate rise? Sure. If, for example, tighter monetary policy reduces the expected monthly rate of depreciation by 2.5 percent, that would counteract half of the increased default risk. But a 2.5% monthly appreciation is still almost 35% on an annualised basis.

This example illustrates the nature of the tradeoff inherent in tight monetary policy. Higher interest rates will presumably slow down capital flight, which will reduce the expected rate of depreciation. That is the central idea behind the conventional IMF view; and it is almost certainly right—*ceteris paribus*. But other things are not equal. What if higher interest rates also increase the probability of default, as they surely will? *Ceteris paribus*, that will undermine confidence and spur capital flight. So the operational question is: Which effect dominates when both interest rates and default rates are rising? According to the conventional wisdom, the first effect always dominates, making tighter monetary policy the right remedy. But I submit that this may not always be true.

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Lesson 7: The International Financial Architecture Needs Some Design Changes
I choose my words advisedly here. Hardly anyone thinks the *status quo* is precisely right. But the agreement ends roughly there, and the debate over reforming the international financial architecture has raged now for almost a decade. Critics have argued that the current system for preventing international financial crises, and for dealing with them when they erupt anyway, needs significant renovation. On this view, the leading countries of the world need a team of architects and a general contractor to start the rebuilding process from the ground up. A few have gone even further and called for a demolition crew to abolish the IMF. But others think the institutions we now have, and the practices they now follow, are more or less correct—so that all we need is some attention to places where the plumbing leaks and the wiring is frayed.

As befits someone who is middle-aged, middle-class, and middle-of-the-road, my own opinion falls squarely in between these two poles. But before going further, I ought to define what I mean by the term "international financial architecture"—since everyone seems to have his or her own favorite definition.

To me, the phrase connotes three main things: first, the major rules that govern cross-border financial flows; second, the institutions that govern these flows; and third, the governance structures of the relevant institutions. The most prominent example of a rule is something I discussed earlier: whether exchange rates should be fixed or floating. Under "institutions," I mean to encompass both literal institutions—places where you can walk in the front door—and figurative institutions such as payments systems, accounting conventions, and banking standards.

Take the Bretton Woods System as an example. Exchange rates were to remain fixed unless a "fundamental disequilibrium" arose. Current accounts were to be open. Capital flows, however, could be limited. And two new institutions, the IMF and World Bank, were set up to, respectively, police the exchange rate system and assist the less developed countries.

In what respects, then, does the current international financial architecture need revamping? That is a big topic on which, literally, volumes have been written. So I will confine myself to just three items that I believe rank high on the priority list.

Capital-Market Liberalisation
First, as to rules, I am less enamored than some of rapid capital-market liberalisation. Truly open capital markets are, in my view, the appropriate long-run goal. But proper sequencing is crucial. I have often said that a country should not adopt America's bad financial habits until it is rich enough to afford them.

In particular, poor countries should be wary of opening their capital markets too wide too soon. If your national balance sheet is smaller than those of the world's biggest investment banks, you are bound to be a bobbing cork in a sometimes-tumultuous sea. Before venturing far from port, therefore, you should make sure that your vessel is seaworthy. This means having, among other things, a well-capitalised banking system; adequate regulation, including a meaningful safety net; a strong, competent supervisory authority; and decent accounting standards. Not many emerging market nations meet all these standards.

Some of you may remember that, in 1997, the IMF wanted to amend its Articles of Agreement to require all members to open their capital accounts. Fortunately, wiser 18.heads prevailed—or perhaps I should say events demonstrated the folly of the 1997 position. Now, both the IMF and the U.S. Treasury are willing to go slow on capital market liberalisation. But we learned this lesson the hard way, from bitter experience.

Orderly Debt Workouts

Another place where a change in the rules was needed, and has finally (sort of) come after years of debate, has to do with insolvency—or perhaps I should say instances of extreme illiquidity. (The two cases are hard to distinguish in practice). Here is the issue. Every now and then some beleaguered nation finds itself unable to pay its creditors on schedule. When this happens, the question becomes: Who will get paid and how much? Domestically, most countries have ways to avoid the mad scramble for what's left in such instances; we call them bankruptcy laws. But internationally, there is no such thing—especially when the debtor is a sovereign nation.

Starting soon after the Mexican crisis in 1995, the rich nations tried to devise some new procedure for orderly debt workouts that might end the chaotic races for the exits that characterised the financial crises of the 1990s. But until very recently, they had nothing to show for their efforts. Why? Because the private sector always balked, apparently preferring free-market chaos to governmentally-regulated order.

Finally, after some eight years of wrangling, officials and private-sector participants recently agreed—at least in principle[15] —to the inclusion of collective-action clauses in international bond contracts so that, for example, bondholders' committees can make decisions about restructuring that cannot be blocked by a small minority. We have, of course, yet to "test-drive" this innovation through a real international financial crises to see how it performs. Furthermore, many years will have to pass before even half of the existing stock of emerging-market debt is covered by such collective-action clauses. Still, it is encouraging that, here too, the world seems finally to have awakened to the new realities of financial life.

Prequalification For IMF Financing

My third suggestion for a change in the rules is a variant—but, I think, an important one—on the IMFs unsuccessful contingent credit lines (CCLs). The idea behind the CCLs is to use prearranged access to IMF loans to help a besieged country with good fundamentals ward off a speculative attack on its currency during a liquidity (not an insolvency) crisis—especially if the

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crisis originated somewhere else. The hope is that speculators will be deterred by the existence of a sizable and (nearly) guaranteed line of credit from the IMF.

The idea sounds good on paper, but the IMF has had no customers for its CCLs yet. Why not? The presumptive reason seems to be that emerging-market nations fear being stigmatised in world capital markets by applying for a such line of credit.

And there is a second problem with CCLs. If countries are classified as either prequalified for IMF credit or not, they will, in the eyes of the international capital markets, fall off a cliff if they lose their preferred status. That is not how well-functioning capital markets work; it is more the way panic-stricken capital markets work. Credit ratings are not a zero-one variable. In normal times, a little slippage in a borrower's credit rating leads to a small increase in the interest rate the borrower must pay.

My proposed modification of the CCL facility addresses both problems.[16] First, it is universal. Every IMF member country would be rated on its macroeconomic and financial fundamentals, perhaps as part of its routine Article IV consultation. Therefore, no nation would place itself under a cloud by applying to the IMF for a credit line.

Second, the IMF would make a finer gradation than just "qualified" or "unqualified." It would instead classify countries into, perhaps, four or five categories. In the case of a contagious crisis, countries in the top category would have automatic access to sizable IMF credits at near-market rates and with few, if any, strings attached. Countries in the next-highest category would get somewhat less generous access, pay somewhat higher rates, and begin to face some conditionality. And so on until we reached the lowest-rated countries, which would have no guaranteed access to credit. They would have to apply to the IMF as at present, pay the highest interest rates, and face the most severe conditionality.

Summing Up

This lecture does not lend itself to a snappy conclusion. But the hour is late, so I will try to provide one anyway. If I had to summarise the lessons of the 1990s in a single thought, it would be this: International capital markets are even bigger, even more powerful, encompass more countries, and react even faster than they did a decade or two ago. But they have not necessarily grown much wiser. As Hillel said, all the rest is commentary.

It is the incredible volume, speed, and unruliness of cross-border capital flows that:

- undermine the viability of intermediate, and to a large extent fixed, exchange rate regimes;
- make financial crises so virulent, so contagious, and so hard for policymakers to get their arms around;
- make the present international financial architecture look old-fashioned and creaky.

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You may applaud this fact or bemoan it, but there is no way to restore the old regime. Computational and telecommunications capabilities will continue their inexorable advance; that's a certainty. And it is my guess that, despite occasional setbacks, worldwide attitudes and policies are likely to keep moving in directions hospitable to globalisation of capital markets. So cross-border financial flows are bound to grow even larger, even faster, and even more powerful in the coming decades.

The big question is: Will these developments produce an unruly and dangerous monster or a well-oiled machine that improves the lot of humankind? Better financial regulation, including especially trans-national cooperation, can help around the edges. But frankly, our main hope—and it is no more than a hope—is that the markets gain wisdom as they grow and mature. As Shakespeare once wrote, though in a decidedly non-financial context, "Tis a consummation devoutly to be wished".

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[1] See, for example. Krugman (1989)

[2] Alternatively, a country can blend the two by gearing its monetary policy to an exchange rate objective short of pegging. But if capital flows are large, doing so may require that monetary policy subordinate domestic aims to the exchange rate objective.

[3] Dollarisation is more commonly discussed, but the same idea could hold vis-a-vis replacing one's domestic currency by the yen or the euro.

[4] Such as Frankel (1999).

[5] Frankel, Schmukler, and Servan (2000) credit Barry Eichengreen (1994) with the earliest known enunciation of the corners hypothesis. He was motivated by the woes of the ERM.

[6] See Blinder (1999), especially pages 55-57.

[7] Unless they assume they will be bailed out by western governments or the IMF—an important caveat.

[8] This view is most commonly associated with Ricardo Hausmann. See, for example, Eichengreen and Hausmann (1999).

[9] Hong Kong has had over seven times cover. Argentina had much less, and did not make it.

[10] But see the discussion of collective action clauses below.

[11] To be clear, albeit brief, I do not believe there is much danger of moral hazard on the part of national governments. What country wants to put itself in the position of Mexico in 1995 or Korea in 1998? The case is stronger, however, for rich-country lenders who may lend recklessly at high rates on the presumption that they will be bailed out if things go wrong.

[12] However, the presence of nuclear weapons complicated everything, leading to the "too nuclear to fail" doctrine.

[13] As the IMF itself seems to have done. See IMF (1999).

[14] Or the probability of a 50% capital loss rise by 10 percentage points, or any other combination with a 5% expected loss.

[15] Only a few countries have actually done this to date.

[16] I made this proposal in Blinder (1999, pp. 61-62).