The crisis in East Asia, an area that was previously viewed as the most successful developing region in the world, has had a profound effect on our thinking about development strategies, the international financial system, and the role of international institutions. Many have seen in the crisis a confirmation of their favorite theories. Some have come away with the lesson that the crisis was the inevitable result of government interference in the economy, and that by destroying once and for all the so-called "East Asian model," the crisis has proved that free market capitalism is the only viable economic system. Others have seen the crisis as deliberately engineered by the West to restrain development in East Asian economies and pressure them to open their markets, a step these critics see as benefiting the West at the expense of East Asia.

I think that both of these views are wrong. It is hard, in particular, to reconcile the first view with the success of East Asia, the understanding of the lessons of that success, and the benefits that success has brought, not only to the people in the region but also to the world more generally. Government played an important role in the success of East Asia. But so did an outward orientation and trade policies, both promoted by the government itself.

Also, neither extreme is consistent with my, and most other people’s, interpretation of the crisis. I will argue that although we do not have, and are not likely to have, a complete theory of what precipitated the crisis, there are certain characteristics of the economy and certain government policies that increased these countries’ vulnerability to a crisis and amplified the aftershocks. On the crucial question of the role of government in the crisis, I will argue that the crisis was caused in part by too little government regulation (or perverse or ineffective government regulation) in some areas and too many or too misguided government administrative controls in other areas.

But even with the best economic management, small open economies remain vulnerable. They are like small rowboats on a wild and open sea. Although we may not be able to predict it, the chances of eventually being broadsided by a large wave are significant no matter how well the boat is steered. Though to be sure, bad steering probably increases the chances of a disaster, and a leaky boat makes it inevitable, even on a relatively calm day.
Explaining the Crisis in East Asia

The lessons we draw from the crisis depend to a large extent on our understanding of the causes of the crisis itself. Most explanations of the crisis begin with a long list of supposed problems of the East Asian countries. This leads many to the *post hoc ergo propter hoc* fallacy of believing that any problem that existed prior to the onset of the crisis is automatically a cause of the crisis. Instead, I would like to begin by briefly recounting some of the strengths and successes of the East Asian economies. This sets a higher threshold for our explanations – they need to be consistent both with this success and with the failure we have witnessed.

The successes of East Asia

For the last three decades, GDP per capita has consistently grown at 5 percent or more annually in Indonesia, the Republic of Korea, Malaysia, and Thailand. These gains, it is important to remember, have brought with them extended lifespans, increased educational opportunity, and a dramatic reduction in poverty. Today 2 out of 10 East Asians are living on less than $1 per day; in 1975 the number was 6 out of 10. Whatever else one says about so-called "crony capitalism," no one can draw a parallel between leaders like President Suharto, who oversaw a decline in the poverty rate from 64 percent in 1975 to 11 percent in 1995, and Mobutu Sese Seko, who looted Zaire, leaving its per capita income at the end of his reign at half of the level it was when he began.

One recent article claimed that the crisis would teach the East Asians the meaning of thrift. The lack of understanding of the East Asian miracle that this claim demonstrated is astounding. Indonesia, Korea, Malaysia, and Thailand all save over one-third of their GDP, something from which the United States, with a national savings rate of 17 percent of GDP, could well learn. The United States is justly proud that it managed last year to bring down its (federal) fiscal deficit to $22 billion, or 0.3 percent of GDP. But compare that to Thailand, which had a (general government) surplus of 1.6 percent of GDP last year, or Indonesia with its (general government) surplus of 1.4 percent of GDP. Inflation, another warning sign that countries are trying to push beyond their capacity, was low and drifting still lower in the months before the crisis.

One particularly important aspect of the growth of the East Asian countries was the role played by the accumulation of what economists call human capital. One indication of this is the doubling of secondary school enrollment rates in East Asia in the last 25 years and the comparatively high level of tertiary education, especially for engineers and scientists. This human capital is not just good for growth; it also is helping East Asia cope with the crisis itself. When I visited Korea in December, in addition to my meetings with the government’s economic team, I had the opportunity to meet with then presidential candidate Kim Dae Jung’s economic advisers. I was extremely impressed with both the government’s and the opposition’s understanding of the Korean economy and the steps that needed to be taken to reform it. Korea had the human capital to field not just one, but two first-rate teams.

East Asian vulnerability in an international context

This brief description should be enough to show that the models about crises that developed in response to the Latin American debt crisis in the 1980s are completely inadequate for understanding the causes or solutions of the East Asian crisis. The problems in East Asia
revolve around private debt, not public debt. And the biggest worry has not been the overall indebtedness of the countries but the levels of short-term debt and portfolio outflows.

Most analysts agree about the sources of vulnerability in East Asia, including weak financial sectors, high levels of corporate debt, and inadequate levels of transparency. What is much less clear, however, is whether these factors can explain the scope, timing, and severity of the crisis. Looking beyond East Asia, there were numerous other countries with worse financial sectors and less transparency that did not experience a crisis.

An analysis of past crises also raises questions about whether the crisis could have occurred even without these weaknesses. As long as there were economic incentives to borrow from abroad private corporations or non-bank financial institutions would have accessed international markets directly even if banks had been better regulated. This is, of course, what happened in Indonesia, where two-thirds of the external bank lending was to the non-bank private sector, among the highest fraction of any country in the world. No country can, does, or probably should regulate individual corporations at the level of detail that would be required to prevent the foreign exchange and maturity mismatches that arose.

The lack of transparency also undoubtedly contributed to the problems in East Asia, especially to the severity of the crisis. As the crisis began, markets realized that many firms in East Asia were much weaker than they had thought. Without reliable information for differentiating among firms, banks may have had difficulty distinguishing good firms from bad firms, leading them to constrict the supply of credit to all firms (or alternatively, to raise risk premiums for all firms).

But we should not forget that transparency is not enough to avoid crises. Some of the worst industrial country crises in the last decade occurred in Finland, Norway, and Sweden – among the most transparent countries in the world. By contrast, Germany has not had a major banking crisis recently, despite the fact that German corporate governance is so complicated and information so scarce that most German firms cannot, or at least choose not to, satisfy the listing requirements for the New York Stock Exchange.

The contribution of government policies to the East Asian crisis

Crisis – or at least marked fluctuations in economic activity – have been features of capitalist industrial economies for at least two hundred years. The recognition that crises will occur even in well-managed economies should not lead us to abandon policy, but it suggests that we should try to explore ways to reduce the susceptibility of countries to crises, and to minimize the severity when they do occur.

A number of specific policies in East Asia shaped the incentives that led to the build up of vulnerability, especially in the form of short-term, dollar-denominated debt:

One policy was the exchange rate peg
As a result the exchange rate largely floated in a narrow band between 25 and 27 baht to the dollar from 1984, when the currency regime was adopted, to mid-1997. The belief that the exchange rate pegs would last convinced many investors to borrow in foreign currencies. One of the main rationales for an exchange rate peg is to maintain a nominal anchor that restrains inflation. But these were not countries that needed to restrain inflation. Prior to the adoption of pegged exchange rates, however, most of the countries in the region had relatively low inflation rates and the experience of the last decade suggests that the inflationary temptation is not a
serious concern in East Asia. Experience also suggests that many countries, not just those in East Asia, have found it difficult navigating a smooth transition from an exchange rate peg.

A second policy that contributed to the crisis was the sterilization of capital inflows. In order to keep their nominal exchange rates from appreciating in response to the huge surge of capital inflows in the last few years, the East Asian economies sterilized the inflows by building up foreign reserves. International reserves in each of the four Southeast Asian economies increased from 1994 to 1996 by about $30 billion, or about a fifth of net capital inflows. The sterilization entailed high domestic interest rates, thus driving a large wedge between domestic and international interest rates, creating an additional incentive for companies to borrow from abroad.

A third policy was the liberalization of capital accounts, without which it is unlikely that the enormous inflows of capital could have occurred. It is worth observing that some of the countries with the weakest financial sectors, the greatest lack of transparency, and the most corrupt political structures were hardly touched by the contagion from East Asia. These were countries with closed, or at least more closed, capital accounts.

Clearly, to the extent that the current crisis can be related to exposure in short-term foreign-denominated liabilities, countries that restricted those liabilities reduced their vulnerability. The question is, what did they give up? The ideological position is that free and unfettered markets generate higher growth. But the reality is that the East Asian countries, with their high savings rates, may have gotten relatively little additional growth from the surge in capital flows. When national savings rates are already above one-third of GDP, the additional investment that can be financed by capital inflows may contribute very little to the overall economy. Although there may have been a substantial short-run demand-side stimulus to the economies from this investment (a stimulus they hardly needed), in the long run it may contribute relatively little to the productivity growth of the economies.

And these gains may have been more than offset by the losses in growth as a result of the current turmoil. As important as the aggregate effects are the distributional implications: In the case of the poor and the most vulnerable, the consequences of the crisis could last a long time. They may well argue that while they benefited relatively little from the capital flows, they have borne the brunt of the costs of adjustment.

This is not to say that steps that open up economies to larger capital flows are always unwise. Clearly, the gains from capital account liberalization would be considerably greater for economies that are far more capital-starved. One of the key issues to which I will turn later is how to achieve these benefits while mitigating the costs.

Finally, the crisis also seems to be partly the result of inadequate financial regulation, which allowed banks to make excessively risky loans without adequate monitoring. And part of that problem in turn was due to excessively rapid financial liberalization without commensurate strengthening of regulation and supervision. In the last decade Thailand has reduced reserve requirements, eased the rules governing non-bank financial institutions, expanded the scope of permissible capital market activities (such as allowing banks to finance equity purchases on margin), and increased access to off-shore borrowing. Beginning somewhat earlier, Korea eliminated many interest rate controls, removed restrictions on corporate debt financing and cross-border flows, and permitted intensified competition in financial services. While the advantages of these changes were lauded, the necessary increase in safeguards was not adequately emphasized.
(But here too, we have to keep our perspective. For every borrower, there is a lender. If domestic banks were foolish in lending to, say, Indonesian corporations, so too were the foreign banks. Indeed, the foreign lenders in many cases should be viewed as the marginal lenders. If they – presumably models of good banking practice – were willing to lend to these sometimes heavily indebted corporations, why should we be surprised that domestic banks were willing to lend as well?)

Again, the ideological position is that financial market liberalization is important because it also leads to faster economic growth, by reducing distortions in the market economy. But both empirical evidence and recent economic theory cast doubt on that proposition. There is evidence that economies that have engaged in mild financial restraints, such as moderate restrictions on interest rates -- and that in doing so have increased the franchise value of their banks, enhancing the safety and soundness of the financial system -- have, if anything, grown more quickly as a result. This evidence is consistent with theoretical studies that have shown that even increased capital requirements cannot efficiently offset the adverse incentives associated with diminished franchise values.

Excessively rapid financial liberalization can, in fact, undermine the strength of financial systems, thereby reducing growth. Many observers attribute the apparent increase in the frequency and severity of financial crises, especially in developing countries, to the way in which financial liberalization has been carried out.

One manifestation of inadequate financial regulation in East Asia was the overbuilding in commercial real estate that is so evident to any visitor to major cities in the region. This is a recent phenomenon. Thailand, for instance, used to restrict bank lending for real estate, both because it realized the danger of such lending and because it wanted to direct credit to what it viewed as more growth-enhancing investments. But again, partly under pressure from those who claimed that such restrictions interfered with economic efficiency, it liberalized, eliminating the restrictions with the predictable consequences we have seen. But even the overbuilding in East Asia needs to be put in perspective. The commercial vacancy rates in Bangkok and Jakarta have been around 15 percent and are expected to rise to 20 percent – comparable to vacancy rates in Dallas and Houston today, and well below the rates of 30 percent or higher seen in several major American cities in the 1980s. But to be sure, the exposure of banks and the systemic risk posed by these vacancies are much greater in East Asia.

We also must remind ourselves that it is very difficult to have good regulation. The United States, which has one of the best regulated financial systems in the world, is proud of the fact that it has gone nine years without a financial debacle. Also, in the 1980s many people claimed that because Sweden did not have deposit insurance, it would not be susceptible to banking crises. The banking crisis of 1991 laid that argument to rest.

Self-fulfilling panics and runs on currencies

Even if the East Asian countries had sound financial systems and good policies, the crises could still have occurred because of the runs on their currencies and the vicious cycles to which they gave rise. All you need is instability in beliefs. Of course, the shorter the maturity structure of debt, the higher the debt-equity ratio, and the weaker the financial system, the greater are the instability of beliefs and the induced disturbance to the economy.
Whenever you have a small open economy, it will be vulnerable to sudden changes in sentiment. Writing during the Great Depression, John Maynard Keynes emphasized the volatile, psychological factors that affected investment and caused business cycles. Keynes thought that these factors were beyond rational explanation, and to emphasize this point he dubbed them "animal spirits." More recently, Alan Greenspan has brought the phrase "irrational exuberance" into our vocabulary. Unfortunately, in East Asia this irrational exuberance has recently given way to an irrational pessimism, a withdrawal of confidence, and a run on economies with very open capital markets. Because expectations are volatile and, as I described in the rowboat metaphor in the introduction to this talk, even a well-managed economy can sometimes be overcome by changes in sentiment.

The irrational pessimism proved self-fulfilling as capital outflows, and the accompanying depreciating currencies and falling asset prices, exacerbated the strains on private sector balance sheets. The vicious circle has become even more vicious as financial problems have led to restricted credit, undermining the real economy, and slowing growth. Given the region’s financial fragility, the economic downturn may well feed on itself – worsening bankruptcies and weakening confidence. Finally, the economic crisis has fostered political and social instability.

The magnitude of the irrational exuberance / irrational pessimism can be seen in the spreads between East Asian debt and comparable, risk-free U.S. Treasury securities. These spreads fell dramatically in early 1997, reaching a low of 90 basis points in Thailand and 110 basis points in Indonesia. They rose sharply at the onset of the crisis in July 1997, reaching roughly 500 basis points by the end of the year. Markets simply did not seem to notice, or reflect, what in retrospect many describe as the growing vulnerability of the East Asian economies.

Further evidence comes from the major rating agencies that did not downgrade their assessments of the East Asian countries until after the onset of the currency crisis. When these downgrades occurred, the result was another round of sell-offs of East Asian securities, driving the crisis still deeper.

I have indicated how many of the fundamental explanations of the crisis have done a poor job in explaining the scope or depth of the East Asian turmoil. Further evidence for the role of "animal spirits" comes from the timing of the crisis. Although conditions were deteriorating in some countries prior to the crisis, in other countries there was very little "news" that explains the onset of the crisis. The general facts of high debt-equity ratios, lack of transparency, and weak financial systems were well known to investors during the periods when they were lending relatively cheaply to the East Asian countries. Much of the macroeconomic data, the "news," was actually turning more favorable in the run-up to the crisis. This is especially striking in Korea. Korean inflation rose to 5.5 percent in mid-1996, but in the months before the crisis it had fallen to just over 4 percent. Its trade deficit – one of the "culprits" in many explanations of the crisis because its counterpart was aggregate net borrowing from abroad – had fallen steadily throughout 1997, essentially reaching balance in the months before the crisis and moving into a small surplus in November.

Lessons for Economic Policy

The experience of East Asia, especially the vulnerability of small, open economies to the mercurial sentiments of investors, provides some important lessons about economic policy.
Although economies may always be buffeted in the seas of changing expectations, good policies can make them less vulnerable.

The relationship between macroeconomic and microeconomic policy

One lesson is that we have become more sensitive to the relationship between what economists sometimes divide into the "macroeconomy" (output, the trade balance, interest rates, exchange rates) and the "microeconomy" (especially the financial system). One example is the question of how to restore confidence, or equivalently, how to persuade people to keep their capital in the country. At first blush, the obvious answer is to increase the rate of return, to increase the interest rate. But we need to ask the deeper question, why are people pulling their money out of the economy in the first place? Often it is because they do not believe that they will receive the promised rate of return; that is, they are worried about the possibility of default.

Higher interest rates increase the promised return, but in many circumstances they will also create financial strains, leading to bankruptcies and thus increasing the expectations of default. As a result, the expected return to lending to the country may actually fall with rising interest rates, making it less attractive to put money into the economy.

Moreover, even this expected return needs to be adjusted for risk. Policies that increase the likelihood of a major economic downturn inevitably increase the risk premium. Furthermore, while economists rightly focus on the economic consequences of their policies, they cannot ignore the political consequences. We know that there are systematic relationships between economic downturns and political disturbances, and we know that an enhanced likelihood of political disturbances will weaken confidence in the economy. This is not rocket science, even if it is not taught in standard economics courses.

In responding to crises, the goal of our policies is typically to restore market confidence. This raises a further question: just what or who is the "market"? Foreign investors, domestic investors, and speculators may all respond to different policies in different ways. It is possible, for instance, that high interest rates might attract foreign capital, while leading domestic investors to move their money out of the economy in order to diversify against the greater likelihood of a domestic downturn. The overall effect of the policy on the exchange rate and capital flows would then depend on the magnitude of the reactions by these two groups.

Moreover, the crisis is another reminder of the complexity of the relationship between exchange rates and exports. Normally we assume that an exchange rate devaluation will make exporting more attractive. But if a crisis leads to corporate failures, which cascade into the bankruptcies of financial institutions and a generalized credit crunch, the responsiveness of exports may be much less than one would expect from normal experience. Addressing the problems in the financial sector, and trying to remedy the shortfalls in credit, may be as important a determinant of exports as the exchange rate.

Financial restructuring

Another set of lessons concerns financial restructuring, particularly the need to maintain the payments system and credit in the process of financial reform. This is very difficult. The standard approach used in dealing with the United States savings and loan crisis was to have the Resolution Trust Corporation (RTC) go into a failed thrift on a Friday evening, work through its books over the weekend, and reopen it under a new name and new management the following Monday. The depositors would see only a change in name and, if the process worked
well, the only borrowers that would notice the effects would be the people who should not have had access to S&L funds in the first place, namely people with highly speculative investments.

But even in this process, with all of its planning and the huge staff of the RTC, it is generally acknowledged that the U.S. economy suffered a credit crunch that was partly responsible for the depth and persistence of the 1990-91 recession.

Restructuring the banking system is even more difficult in many developing countries, for several reasons. First, there is less technical, legal, and institutional capacity for tasks like asset resolution. Second, the fraction of the banking system with bad assets and insolvencies is often far larger; there are fewer healthy banks to take over the weak banks. Third, the banking systems may be more complex, with a mixture of state and private banks. The state banks may carry with them an implicit guarantee for depositors. A government announcement that it will not guarantee the private banks can easily generate a run on the private banks, especially if the government shuts down some banks but leaves doubts about the health of some of the remaining banks.

Restructuring done the wrong way can create havoc. It can lead to credit crunches, contributing to the insolvency of firms that otherwise would have survived. And given the financial and production interconnections among firms in the economy, the problems in some firms can cascade down into insolvency and illiquidity among other firms throughout the economy. These problems quickly get translated to the financial sector as a whole, and even production and real output.

Of course, a key issue in strengthening the financial sector is to do so in ways that enable it to more effectively fulfill its role in promoting economic growth. One can obtain complete security by having narrow banks and forbidding them to make loans to new enterprises, but doing so would inhibit their role in promoting investment, entrepreneurship, and growth.

Corporate governance

As important as strengthening the financial sector is, that alone will not suffice. As I have already noted, the corporate sector can borrow from abroad, exposing a country to similar vulnerabilities. High debt-equity ratios, lack of transparency and inadequate accounting standards, lack of protections for minority shareholders, and other aspects of corporate governance clearly played a role in causing and magnifying the East Asian crisis. Some of these issues may be readily addressed; others, such as the high debt-equity ratios, may require more time. At the onset, governments should correct the tax, regulatory, and banking practices that encouraged the high debt-equity ratios. For instance, capital requirements associated with loans to firms with high debt-equity ratios should be increased commensurate with the risk associated with these loans. Given the externalities – the systemic risk associated with these high debt-equity ratios – a good case can be made for going further, that is actually introducing tax and regulatory policies to discourage high debt-equity ratios. Encouraging pension programs and employee stock option programs (ESOPs) might simultaneously strengthen the social safety net, improve social cohesion, and provide a strong equity base for the corporate sector.

Preventing Crises by Controlling Capital Flows

We cannot expect to eliminate all fluctuations or all crises. Even if we could eliminate all of the "problems" and "mistakes" in economic policy, it is unlikely that we could fully insulate economies against shocks, including events such as the OPEC oil price increases in the 1970s
or changes in market sentiment, such as occurred in the current East Asian crisis. Furthermore, although there is much more scope for policy reforms in developing countries, we should not delude ourselves into thinking that this can take place overnight. Building robust financial systems is a long and difficult process. In the meantime, we need to be realistic and recognize that developing countries have less capacity for financial regulation and greater vulnerability to shocks. We need to take this into account in policy recommendations in all areas, especially in the timing and sequencing of opening up capital markets to the outside world and in the liberalization of the financial sector.

We must bear in mind too in designing policy regimes (such as opening up capital markets) that we cannot assume that other aspects of economic policy, such as macroeconomic policy or exchange rates, will be flawlessly carried out. The policy regimes we adopt must be robust against at least a modicum of human fallibility. Airplanes are not designed to be flown just by ace pilots, and nuclear power plants have built into them a huge margin of safety for human error.

One feature of a robust policy regime is that it minimizes the long-term consequences of the inevitable fluctuations in economic activity, including preventing crises and setting up mechanisms for orderly workouts when they do occur. This means designing financial systems that buffer the economy against shocks rather than magnify the shocks. At the same time, we want to ensure that adequate savings are mobilized and allocated to productive investments. Again, a robust financial system is essential.

Although domestic economic reforms can go a long way toward achieving these goals, some international effort may be required. I think that the time is ripe for an open debate and discussion on the advantages and limitations of a variety of approaches, including some form of taxes, regulations, or restraints on international capital flows.

The importance and limitations of information

Before discussing these measures, I would like to discuss one important part of the strategy: the need for greater transparency and more information. Both the Mexican and the East Asian crises were partly triggered and propagated as a result of investors learning that reserves were smaller than they had thought and that short-term debt was higher. The result was not just a withdrawal of short-term credit, but portfolio outflows as well.

Perhaps even more important than the dissemination of misleading information being disseminated, at least in some countries, was the general lack of information which, as I said, makes it difficult for investors to distinguish between firms and financial institutions that are healthy and those that are not. In response, investors shied away from all. With more credible information systems, firms that remain healthy would be able to retain access to credit.

The standard macroeconomic data would not have been very helpful in predicting the East Asian crisis, which depended on the composition and allocation of private-to-private capital flows. Unfortunately, getting information about private sector spending and borrowing is much more difficult than obtaining comparable information about public finances. This is especially the case when transparency is limited. In a world where private-to-private capital flows are increasingly important, we will need to recognize that monitoring and surveillance are going to be especially challenging. The growing use of derivatives is increasingly making the full disclosure of relevant information, or at least the full interpretation of the disclosed information, even more difficult.
We should remember, too, that the great merit of a market economy is that dispersed information is aggregated through prices and the incentives they create for behavior, without the need for any centralized collection of information or planning. There is a certain irony about praising a market economy for this decentralization of information, and at the same time complaining about the lack of aggregate data necessary to assess systemic risks.

Moreover, we should not be under the illusion that having improved data is sufficient for financial markets to function well. In East Asia much of the important information was available, but it had not been integrated into the assessment of the market. Furthermore, it is impossible to eliminate all uncertainty and asymmetries of information. Entrepreneurs will always know more about their investments than will the banks that lend to them, and managers will always know more about their actions than shareholders will. Without the correct incentives, even perfect aggregate information would not be sufficient for the efficient, or stable, functioning of markets.

Although our information about private capital flows is imperfect, and although even with vastly improved information I am not sanguine that we – or the market – would be able to predict or forestall all crises, I do think that the returns from improving our statistical bases are significant. My caution is only that we should not be misled into thinking that this will solve our problems. Better information – seemingly the most important improvement in the international financial architecture to come out of the last crisis – should not lull us into complacency.

The economic justification for "intervening" in the market

After the Mexican crisis many said that this was the last time any crisis like that would occur. The East Asian crisis, just two years after the problems in Mexico, should serve to remind us that we will have more crises in the future. The question we need to ask is what actions can be undertaken, by lending countries, borrowing countries, or the international community, to reduce the frequency or magnitude of these crises.

I do not think that a blanket objection to the government intervening in international capital markets would be a very good way to begin this discussion. The roughly $110 billion package for East Asia is clearly a major intervention in the workings of the free market. The international community justifies this support because it is worried about the potential for systemic risk in these types of crises.

In the case of East Asia there is much less risk to the banks in developed countries than they faced in the Latin American debt crisis in the 1980s: in June 1997 BIS-reporting banks had only 19 percent of their capital in loans to East Asia, compared with 58 percent to the Latin American countries with debt difficulties in 1982. The risk that worried policymakers in the current circumstances was that the crisis would spread to other developing countries.

There is no consensus in the economics profession about the significance of contagion and systemic risk. Neither the theory nor the evidence seems decisive. There is a controversy in part because we simply have not run the "experiment" to see what would have happened to the international financial system without the international bailouts for Latin America in the 1980s or Mexico in 1995. In both of these cases, as with East Asia, policymakers have been understandably reluctant to simply stand by while the dice were being thrown. But what there can be little argument about is that if
governments are likely *ex post* to engage in bailouts because they believe in systemic risk, then you must also believe that *ex ante* may be warranted.

There are two possible economic justifications for this intervention. The first is that the social risk is not equal to the private risk so that, left to themselves, markets will accumulate more risk than is socially efficient. This is analogous to pollution, which imposes greater costs on society than are borne by the polluter alone. In this case, we typically tax or regulate the pollution. The same logic would suggest some type of tax or regulation on international capital flows. We should recognize that most countries have various forms of taxes or regulation on the domestic financial system, including measures like reserve requirements or deposit insurance. These are justified by the systemic risk to which financial decisions give rise and by the interventions (e.g., bailouts) which so frequently arise. Although these may or may not be feasible or desirable at the international level, I do not think it would be consistent with our other policies to rule these steps out on *a priori* grounds.

Another possible economic justification for intervening in the market with the rescue package is that the market is not even pricing private risk efficiently, that is, that the market is irrational. One form of irrationality that is sometimes discussed is the claim that market participants can be overly focused on the immediate term, particularly in figuring out what other market participants are going to do. This is what Keynes referred to as a "beauty contest" in which contestants are trying to guess who the other judges think is most beautiful, not who actually is the most beautiful. As a result, markets can diverge from long-run fundamentals which, according to this view, are more stable than the actual market outcomes.

There is an extensive economics literature documenting what is called the market’s "excess volatility." If it is correct then, some measure like a Tobin tax (a tax on exchanging currency) could increase the cost of short-term speculation by raising the cost of round-tripping, while still allowing markets to respond to changes in the long-run fundamentals. Again, I am just raising the Tobin tax as an illustration; in practice, there are serious questions about its feasibility, especially in a world of rapid financial innovation, where it could be easy to circumvent.

(The argument sometimes put forward that the bailouts do not cost anybody anything can, similarly, be looked at in two different ways. If markets are "rational" then the fact that the interest rate charged is below the market interest rate for these loans is evidence that there is, in an ex ante sense, a real subsidy to the borrower, even if ex post we have been repaid for the loans made in previous bailouts. Alternatively, markets may be "irrational," charging an excessively high risk premium – one that cannot be justified by the real risk. Then the intervention in the market may be costless; but this argument certainly undermines confidence that markets by themselves are likely to yield efficient outcomes.)

The "intermediate targets" of international financial regulation

If we accept the argument that some form of intervention – a term that includes prudential financial regulation – is justified to bring the private risks into line with the social risk, the next question is what "intermediate targets" should we focus on to achieve this broad goal? Two objectives come to mind:

One of our objectives should be to try to influence the *pattern of capital flows*. Currently, 75 percent of private capital flows to only a dozen countries, and most low-income countries have
little access to private capital relative to the size of their economies. Procyclicality is another undesirable feature of the international capital flows. Countries seem to get the most private capital when they are growing strongly and need it least and have a relatively harder time accessing capital in hard times when they need it most. As a result capital flows do relatively little to smooth the business cycle and may even amplify it. Accomplishing this objective, however, may be very difficult.

Another objective concerns the composition of capital flows. There is now broad agreement about the value of foreign direct investment, which brings not just capital but also technology and training. Preliminary evidence from East Asia also shows that consistent with past experience, foreign direct investment is relatively stable, and certainly far more stable than other forms of capital flows.

Unlike foreign direct investment, short-term capital does not bring with it ancillary benefits. In the form of trade credits it provides an important, and relatively inexpensive, source of international liquidity without which no economy, especially an export-oriented economy, could run. In addition to providing liquidity, short-term capital, along with other forms of flows, allows a country to invest more than it saves. When this money is invested productively, the benefits to the economy are large. But when the saving rate is already high, and when the money is misallocated, the additional capital flows just increase the vulnerability of the economy. Moreover, given their volatility, what well-managed economy would risk basing long-term investments on short-term flows? Hence, short-term capital’s value in increasing GDP is at most limited.

The large benefits of foreign direct investment, and the costs and benefits of short-term capital flows, have led many people to investigate ways to encourage long-term investments while discouraging rapid round trips of short-term money. There are many components of such a strategy. First, we need to eliminate the tax, regulatory, and policy distortions that may, in the past, have stimulated short-term capital flows. Examples of such distortions are evident in the case of Thailand where the tax advantages for the Bangkok International Banking Facilities encouraged short-term external borrowing, but subtle examples exist almost everywhere. Without risk-based capital requirements for banks, for instance, incentives for holding certain assets and liabilities will be distorted. Second, several countries have imposed prudential bank regulations to limit the currency exposure of their institutions. Colombia’s regulations seem to have served it well during the recent crises.

But these measures may not go far enough, especially once it is recalled that corporate exposure may itself give rise to vulnerabilities. And the systemic risks to which such exposure can give rise provide ample justification for taking further measures, as I have already suggested. Among the ideas currently under discussion are inhibitions on capital inflows. In thinking about how to accomplish this, we should look to the lessons of the Chilean experience. Chile has imposed a reserve requirement on all short-term capital inflows – essentially a tax on short-maturity loans. The overall efficacy of these controls is the subject of much discussion, but even most critics of the Chilean system acknowledge that the reserve requirement has significantly lengthened the maturity composition of capital inflows to Chile. This may be part of the reason that Chile was one of the few countries in the region that was relatively unaffected by the Tequila crisis in 1994-95 and the current East Asian crisis.

Still other measures employ tax policies, for example, limiting the extent of tax deductability for interest in debt denominated or linked to foreign currencies. The problems of implementing these policies may in fact be less than those associated with the Chilean system.
Responding to Crises: the Challenge of Orderly Workouts

A keystone in the development of modern capitalism has been limited liability and bankruptcy laws. Modern bankruptcy laws attempt to balance two considerations: promoting orderly workouts so that business values can be retained and production losses can be kept to a minimum, and providing appropriate incentives so that those engaged in risky behavior bear the consequences of their actions.

In the absence of orderly workout procedures, countries may worry that unless they issue guarantees or assume private debts, the disruption to the economy will be unbearable.

Similarly, the international community has long complained about the problem of moral hazard, the fact that lenders have been at least partially bailed out. To be sure, in many cases the bailout has been far from complete and lenders have lost money. Still, to the extent that there is any bailout, they have not been forced to bear the full risks associated with their investment, and the belief that in the future that that might be the case can give rise to the moral hazard. Again, the international community faces a dilemma: it often sees no alternative to a bailout – the risks of not undertaking an action seem unacceptable. After each crisis, we bemoan the extent of the bailout and make strong speeches saying that never again will lenders be let off the hook to the same extent. But, if anything, the "moral hazard problem" has increased, not decreased, with each successive crisis.

While the experiences of the last twenty years suggest that lenders can be forced to bear more of the costs than they have in at least some of the more recent crises, it is also clear that the middle of the crisis is not the right time to deal with these issues.

We can, however, prepare for the next crisis. I believe that there is more that we can do to facilitate orderly workouts, to reduce moral hazard, to make those investors who are most likely to reap the benefits of a bailout pay part of the costs, and more broadly, to reduce the discrepancy between social and private returns to certain forms of risky international lending. But we should not underestimate the difficulties involved. In the aftermath of the Mexican crisis, there was a resolve to do all of this. In the aftermath of yet another crisis, we now need to revisit all of these issues.

The Role of the World Bank

Before concluding, I would like to discuss the role of the World Bank, both in this crisis and more broadly. The World Bank is a development institution, not a crisis fighter. We focus on project lending and structural reforms that enhance long-run development and poverty alleviation. In East Asia, however, the roots of the crisis have been at least as much in the structural features of the economies, like the systems of financial regulation, as they have been in the macroeconomic dimensions. As a result, structural reforms, and the World Bank’s support and technical assistance, have been an important part of the short-run stabilization strategy in East Asia.

Addressing pressing issues such as weak financial sectors, lack of transparency and poor governance in the corporate sectors, and weaknesses in external liability management will help restore confidence among foreign and domestic investors. This is an important part of the strategy to reactivate the East Asian economies and thus to protect and extend the region’s enormous social and economic achievements.
In supporting these goals, the World Bank has pledged roughly $16 billion to the region, the equivalent of almost an entire year’s lending program. These pledges comprise $1.5 billion to Thailand, $4.5 billion to Indonesia, and up to $10 billion to Korea. We have already disbursed substantial sums. In Korea, for instance, the Bank’s $3 billion economic reconstruction loan was approved by the Board only three weeks after the crisis and was disbursed the very same day.

At the same time the World Bank, together with our partners has the responsibility for ensuring that the poor and vulnerable suffer as little as possible in the process of adjustment. Financial crises typically bring with them large increases in unemployment, which often linger well after the initial crisis has passed. The devastating consequences for the poor can persist long after capital flows and economic growth resume.

The immediate need is for the government in these countries to step in and fill the income-security gap that will be left by companies closing and workers losing their jobs. Over the longer term, the World Bank will be working with the countries in the region to help them design modern, durable social safety nets that complement their other structural reforms. We should be mindful, however, that it will not be possible to create an effective social safety net overnight, especially in the rural sector, and the pace and content of reforms should take this into account.

Looking forward, there is potentially a broader role for the World Bank. The changing world will need to be matched by changes in the international financial architecture. Because of their global perspective, international institutions, including the World Bank, will have an important role to play in this international dialogue.

Concluding Thoughts

It has become a cliche to refer to the new globalized economy. Yet the fact is, reductions in transport and communication costs have been accompanied by reductions in government-created impediments to the free flow of ideas, goods, and capital. We do live in a more integrated international economic community.

Somewhat more than a century ago, when nation-states were being formed, there was a recognition that the new nation-states needed a new set of economic institutions to realize their full potential. In the United States in 1863, in the midst of the Civil War, as Congress grappled with the challenge of providing the foundations of a new, stronger, unified country, it established the world’s first financial sector regulatory body, the Office of the Comptroller of the Currency. It has taken more than a century before the country began to feel comfortable with a system of national banking – and even today, there are misgivings in many parts of the country.

Today, we stand on the edge of a new world economy. But we do not have international institutions to play the role that the nation-states did in promoting and regulating trade and finance, competition and bankruptcy, corporate governance and accounting practices, taxation, and standards within their borders. Navigating these uncharted shoals will be a great challenge. But just as much of the prosperity of the past hundred and fifty years can be related to the expansion of markets that those transformations afforded, so too the prosperity of the next century will depend in no small measure on our seizing the opportunities afforded by globalization.
In approaching the challenges of globalization, we must eschew ideology and over-simplified models. We must not let the perfect be the enemy of the good. As one of my friends put it, in a downpour, it is better to have a leaky umbrella than no umbrella at all. I believe that there are reforms to the international economic architecture that can bring the advantages of globalization, including global capital markets, while mitigating their risks. Arriving at a consensus about those reforms will not be easy. But it is time for us to intensify the international dialogue on these issues.
Financial institutions play a pivotal role in every economy. They are regulated by a central government organization for banking and non-banking financial institutions. These institutions help in bridging the gap between idle savings and investment and its borrowers, i.e., from net savers to net borrowers. Following are the list of roles performed by Financial Institutions: Regulation of Monetary Supply. Banking Services. But in the current swift changing environment, it is very difficult to choose the best option. Almost all financial institutions (banking or non-banking) have an investment advisory desk that helps customers, investors, businesses to choose the best investment option available in the market according to their risk appetite and other factors. Brokerage services. The Financial Institution A financial institution is basically an establishment that conducts financial transactions such as investments, loans and deposits. There are five main types of financial institutions. 1. Commercial banks: commercial banks... The primary role of financial institutions is to provide liquidity to the economy and permit a higher level of economic activity than would otherwise be possible. According to the Brookings Institute, banks accomplish this in three main ways: offering credit, managing markets and pooling risk among consumers. If you are familiar with GDP, the investment portion is heavily influenced by financial institutions, as they facilitate how much people save and invest in an economy, which is an ingredient for economic growth.