# Overview

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The traditional economic benefits that result from the international flows of goods and capital are so well known to economists that no one at this conference even felt the need to enumerate them. There are, however, other advantages that are often overlooked and that are worth noting before turning to the three major issues discussed during the past two days.

First, the international flows of capital permit a diversification of lending and investment that can reduce the risk to the owners of capital. So much of the attention at this conference has been on the risks of international capital flows that it is important to bear in mind this countervailing effect. If appropriate policies are taken to reduce the likelihood and virulence of international economic crises,[1] the diversification advantages of international capital flows could well be the dominant influence.

Second, the global integration of capital markets and the increased volume of foreign direct investment spread the U.S.-UK forms of corporate governance, accounting rules, and perhaps legal traditions as well. There is a growing body of evidence that the Anglo-American common law rules, corporate governance principles, and accounting standards improve the efficiency with which capital is invested.[2]

Third, the global mobility of financial capital and the possibility of relocating production facilities through foreign direct investment limit the ability of governments to pursue bad tax policies or regulations.

**Increases in foreign direct investment (1)**

The discussion at this meeting focused on trade in goods and services, on international migration, and on the international flows of portfolio capital. Very little was said about the increasing volume of foreign direct investment, even though such investment flows are very important in many ways.

Much of the recent increase in the U.S. current account deficit has been financed by foreign direct investment into the United States. In the past year, the net equity flow to the United States in the form of portfolio capital has been very small. Virtually all of the net equity capital that came to the United States was in the form of foreign direct investment, including mergers and acquisitions as well as new investments and outright purchases of existing businesses.

Not all foreign direct investment around the world represents net capital flows. Often, such investments are financed in local markets. The gains to the host countries from FDI, therefore, take at least three other forms.

First, foreign direct investment provides a mechanism for transferring technology that cannot be achieved through financial investments or through trade in goods and services.

Second, the countries that receive foreign direct investment often gain employee training as an automatic by-product of operating the new businesses. Such human capital development is important not only for production workers but for managers and executives as well.

Third, the equity capital that is transferred generates profits in the receiving country and those profits are subject to corporate taxation in that country. Although the provider of the capital can repatriate its investment income to the home country, the funds that it repatriates are net of the corporate taxes that are imposed by the host country.

In addition to these benefits to the host country, foreign direct investment also benefits the parent company by providing an oppor-

tunity to exploit economies of scale in production and in such overhead activities as research and development, as well as brand name value.

Outbound foreign direct investment can be either an advantage or a disadvantage to the source country. The negative effect reflects the extent that the profits on the exported capital are taxed by the host country rather than by the source country. However, to the extent that foreign direct investment is financed by funds borrowed in the host country, there is scope for the gains associated with leveraged profits to create net benefits for the source country (Feldstein, 1998).

There are many reasons for the increased volume of foreign direct investment during the past several decades. Some of these are closely associated with the increase in exports as exporting companies set up production facilities to be near clients. But two other factors are noteworthy.[3] The global political change that has followed the end of the Cold War and the changing political climate in emerging market countries in particular have made the world friendlier and safer for foreign direct investment from the United States and from other industrial countries.

A second factor that has spurred an increase in foreign direct investment from the United States has been a change in the management culture. Managers of U.S. firms have learned to think globally in the past decade or two in a way that was generally not true earlier. In addition, there have been an increasing number of senior managers of U.S. corporations who are foreign nationals. The change in management attitudes and practices is contagious. As some firms begin to invest and sell abroad, others are inspired to do the same.

The observed increase in foreign direct investment is potentially important for the future risks of international financial crises of the type that plagued emerging market countries in the late 1990s. There is now a consensus that short-term debt is the most volatile source of foreign capital and, therefore, contributes most to the instability of financial markets at a time of crisis. Long-term debt and portfolio equity is less volatile. Foreign direct investment is the most stable

form of capital inflow. An increased role of foreign direct investment in the capital inflow to emerging market countries can, therefore, reduce the risk and the magnitude of future international financial crises. Although this role of foreign direct investment is potentially significant, its importance should not be exaggerated. Although foreign direct investment cannot be reversed as quickly as short-term financial loans, the flows of FDI can be stopped and even reversed by selling assets. Earnings can be repatriated instead of being reinvested in the business, and funds that can be borrowed against the collateral of the direct investment can also be shifted out of the country.

Despite this reservation, it is true that the increasing relative volume of foreign direct investment that is likely to occur in future decades will help to reduce the risk of financial crises in emerging market economies. This brings me to a more general discussion of the second major subject of this conference: economic crises in emerging market economies.[4]

## Preventing and managing economic crises (2)

My own judgement is that the emerging market crises of the late 1990s had three causes. Although Paul Krugman (2000) referred to them as three alternative explanations that economists developed in sequence, I believe that all three are relevant, although their relative importance differed among the crisis counties.

The first of the three causes was the exchange rate misalignments that led to current account deficits that were too large to be sustainable.[5] These exchange rate misalignments, in turn, reflected the fixed exchange rate regimes that these countries had adopted. Thailand had fixed the bhat at 25 bhat to the dollar and tried to maintain that exchange rate, despite a current account deficit of 8 percent of GDP. It eventually lost all of its foreign exchange reserves trying to do this and was forced to float the value of the bhat. That, in turn, precipitated Thailand's financial and economic crisis.

The second reason for the international financial crises was the national balanced sheet mismatch between short-term foreign

exchange liabilities and foreign exchange reserves. When short-term liabilities exceed foreign exchange reserves, creditors are understandably nervous about their ability to get repaid and, therefore, unwilling to roll over loans when they come due. The fundamental mismatch of short-term corporate debt and foreign exchange liabilities was the primary cause of the Korean crisis. When foreign creditors are unwilling to continue to lend and foreign exchange reserves are inadequate, the value of the currency inevitably declines. Although this currency decline produces the increase in competitiveness that allows the country to earn increased foreign exchange, the decline in the currency can create a serious problem. This is true when the foreign denominated liabilities are obligations of the government but is a more serious concern when those liabilities are private debts. Private borrowers are hard hit when a decline in the value of the domestic currency relative to the dollar substantially increases the magnitude of their corporate debt when expressed in the domestic currency. This increase in the real value of the debt is a depressing effect on the economy, an example of debt deflation that is particularly serious when initial debt-equity ratios are high. This debt deflation was a particularly serious problem for Thailand because of the extent of dollar-denominated debt. It undermined both nonfinancial corporations and their domestic creditor banks that had given them dollar-denominated loans and financed those loans by borrowing dollars in the international market.

The third problem that was common to all of the financial crises was the weakness of domestic banking systems and the poor quality of banking supervision. When banks are weak and burdened with bad loans, foreign banks and domestic depositors are likely to be concerned about continuing to extend credit and make deposits. At the first sign of a crisis, both groups of creditors are likely to begin withdrawing their funds. This, in turn, forces the commercial banks in the emerging market countries to call in their loans and to sell assets, deepening the domestic economic crisis.

These domestic causes were exacerbated by the response of the International Monetary Fund. One aspect of the IMF's inappropriate response was what the IMF officials said and what they didn't say. As

soon as the crisis began in Thailand and Indonesia in the summer of 1997, the managing director of the IMF said that the Asian crisis countries were corrupt and incompetent and in need of fundamental change if they were to ever be creditworthy. It is not surprising that the crisis spread to other countries in the region that appeared to share some of the same political and managerial features as Thailand and Indonesia. Why would creditors want to roll over their loans to Korea when they had been warned in this way by the IMF of the very high risk that such loans would involve?

The IMF officials also made the crisis worse by not saying that the problem in the crisis countries was one of temporary international illiquidity and not of permanent insolvency. A solvent country that can eventually repay its foreign denominated debts can hope to attract continued credit, even if it is temporarily illiquid and unable to meet its current obligations. Although this was a major part of the IMF message doing the currency crises of the 1980s, this message was forgotten or deliberately omitted in the 1990s.

A second aspect of the IMF response was the very complex plans with dozens of detailed conditions that the IMF imposed as a condition of its large loan programs and of certifying that the crisis countries were again creditworthy borrowers. The difficulty—many would say impossibility—of implementing these plans added to the uncertainty of private lenders about the future health of the crisis economies.

Paul Krugman (2000) noted that of the four major crisis countries only Malaysia and Korea have enjoyed significant recoveries, while Indonesia and Thailand are still in bad shape. Some basic facts confirm his assertion. During the past year, the GDP of Malaysia rose 12 percent and the GDP of Korea rose nearly 13 percent. These were more than double the 5.2 percent increase in Thailand and 4.1 percent increase in Indonesia. The stock markets of Thailand and Indonesia, measured in dollar terms, have fallen by 37 percent since the start of the year 2000, much more than the declines of one percent in Malaysia and 25 percent in Korea. The exchange rate of Malaysia has not changed in the past year, while that of Korea appreciated by about 7 percent. In contrast, the Thai bhat fell from 38 per dollar to 41

to the dollar and the Indonesian rupiah fell from 7,300 per dollar to 8,500 per dollar.

It is noteworthy that Malaysia rejected the advice of the IMF, imposed currency controls, and did not have an IMF program. Korea, the other success story, had a crisis that need not have happened. In contrast to the others, Korea did not have a large structural current account deficit; the increase in the trade and current account deficits before the crisis reflected primarily the collapse of the global semiconductor market, a product in which Korea has substantial exports. As I already noted, the big problem in Korea was an international balance sheet mismatch. The short-term dollar liabilities of Korean financial and nonfinancial corporations exceeded the nation's foreign exchange reserves. This mismatch was the result of the premature opening of Korea's capital markets and of allowing its financial institutions to engage in borrowing and investing activities that should have been stopped by better regulation.

But despite these problems, Korea was solvent and could easily repay its foreign exchange obligations. Indeed, in the thirty months since the end of 1997 when its reserves were exhausted, Korea has not only been servicing its external debts, but has also accumulated more than $90 billion in foreign exchange reserves. The Korean situation should have been managed with its fundamental solvency in mind, instead of attempting to impose a fundamental restructuring of the Korean economy. The Korean economy has enjoyed a strong recovery even though that restructuring has been very incomplete. Although the government of Korea has been able to achieve its political goal of weakening many of the large industrial conglomerates, it has not achieved the financial reforms and privatization that were the core of the IMF program. Indeed, most of the Korean banks are still de facto owned by the government. It is, thus, not clear how much the IMF program requirements actually changed the structural policies of the Korean government from what they otherwise would have been. It is also not clear whether the structural changes that have occurred helped or hindered the Korean recovery.

What of the future? I think it is clear from the experience in the key

crisis countries (Indonesia, Thailand, Malaysia, and Korea) that the economics profession and the international financial institutions do not know how to manage financial and economic crises in the emerging market countries. We may have learned some things that should not be done, but we do not know what should be done to bring a country back to full economic health or to avoid massive suffering after the crisis begins. That sad conclusion makes reducing the risk of future crises all the more important.

The experience of the past decade suggests that emerging market countries that want to avoid future crises must do three things: (1) avoid the large current account deficits that are caused by misaligned real exchange rates; (2) avoid international balance sheet mismatches by limiting the magnitude of short-term foreign currency liabilities; and (3) strengthen the domestic banking system and banking regulation to reduce the risk of excess credit extension, poor credit risks, and inappropriate foreign exposure.[6] But while these are necessary conditions for avoiding future crises, they are not sufficient. Countries that want to reduce the risk of "contagion attacks" and other speculative runs on their currency—and to reduce the likely success of such attacks—should also take steps to increase their international liquidity by a combination of increased foreign exchange reserves and pre-arranged market based lines of credit.[7]

Countries frequently hold low levels of foreign exchange reserves because they regard holding reserves as expensive since the yield on U.S. Treasury bills (the usual foreign exchange asset) is much less than the cost of international borrowing or the opportunity cost of those reserves (e.g., the productivity of imported foreign industrial equipment). But countries could increase their yield on the foreign exchange reserves by investing them in liquid assets that offer higher yields than U.S. Treasury bills. Such assets could include long-term government bonds and equity index funds. Although these are riskier than Treasury bills, the overall risk of a country is likely to be less by having a larger volume of foreign exchange reserves invested in such assets than a smaller foreign exchange reserve invested in Treasury bills.

What about the future role of the IMF? The new IMF managing director, Horst Kohler, has said that in the future the IMF will play a more limited and focused role than it did in the past. The specifics of this new orientation remain to be defined. In particular, it is not clear whether it is a new approach for the dozens of non-crisis countries that now have IMF programs or refers to a new approach for countries that experience crises. It does seem clear, however, that the IMF can help to resolve the crisis situations and to reduce the risk of future crises if it does three things. First, bring borrowers and lenders together at the time of crisis. Second, provide accurate assessments of the ability of debtor countries to service and repay their foreign currency obligations, as well as other information on monetary and fiscal conditions. Third, provide advance warnings of balance sheet mismatches to central banks in the United States, Europe, and Japan so that as supervisors they can be in a better position to limit the risks taken by the commercial banks that they supervise.

**Prospects for currency fluctuations (3)**

Although there are still some economists and policy officials who long for a system of fixed exchange rates among the dollar, yen, and euro, it seems very unlikely that such a system will come into being at any time in the foreseeable future. The relative values of these three major currencies, as well as the currencies of other countries, will continue to fluctuate in the future as they have in the past. Although the rise in the value of a currency is seen as a problem by many exporting companies, it also brings substantial national advantages. The obvious advantage is that it improves the country's terms of trade, permitting more imports for each unit of exports. In addition, a rise in the value of the currency and the resulting increase in the current account deficit permits an inflow of foreign capital to offset a decline in the national saving rate (as it did in the United States in the 1980s when the large budget deficits reduced national saving) or to finance an increase in the nation's rate of investment in plant and equipment (as it has recently in the United States when a change in technology has led to an increased demand for investment).

But large current account deficits cannot persist, even for the

United States. Large international capital flows and increases in current account deficits are frequently one-time portfolio reallocations in response to changes in investment opportunities. Such portfolio reallocations are temporary phenomena and not sustainable flows. Current account deficits can, therefore, rise temporarily but not permanently. Global capital markets are more segmented than much of the textbook analysis of capital markets implies or than the appearance of large gross capital flows suggests. In short, national saving tends to remain at home. This global capital market segmentation is the essential fact that has been called the Feldstein-Horioka (1980) puzzle.

There are, in fact, two different Feldstein-Horioka puzzles. First, we observe very large gross international flows in financial markets combined with small net flows. Vast sums are borrowed and lent across national borders. Substantial international diversification of equity investments exist, although more limited than the theory of optimal diversification suggests. And yet we see relatively small-sustained current account deficits and, therefore, relatively small associated net capital flows. How can those two facts be reconciled? I believe that much of the discrepancy between net and gross capital flows reflects the fact that much of the foreign borrowing and lending is designed to take advantage of small interest rate advantages in credit markets that are simultaneously hedged. For example, an American firm may find that it can issue bonds in Europe in euros at a favorable interest rate even after it swaps the euros back into dollars and buys future euros with which to repay its obligations when they come due.[8] But the process of selling the euros that it borrows for dollar and buying future euros at the same time is equivalent to lending euros today with the expectation of being repaid in the future. The currency hedging, therefore, effectively offsets the initial capital flow. In effect, the gross flow combined with hedging shifts credit risks across borders but does not shift capital.[9]

The second, and more fundamental aspect of the Feldstein-Horioka puzzle, is the puzzle of why the current account deficits are so small. Obstfeldt and Rogoff (2000b) provide a very interesting explanation.[10] They argue that frictions in international trade imply that large current account deficits would require high real interest

rates. The natural response of savers and investors to such high incipient real interest rates is to increase saving and/or reduce investment, thus limiting the size of the current account deficit.

The important contribution of this explanation is that it reconciles the fully unrestricted global capital markets of economic theory with the observation of de facto capital market segmentation described as the Feldstein-Horioka puzzle. Although there has been a growing body of statistical evidence that supports the Feldstein-Horioka finding that countries with high saving rates also have high domestic investment rates, the apparent conflict with the belief in perfect capital markets without barriers among the major industrial countries has made it difficult for many economists to accept the existence of de facto segmentation and the implication that increases in national saving rates will lead to increases in national investment rates. The Obstfeldt-Rogoff result may make such economists more comfortable with the Feldstein-Horioka finding and its implications.

The conclusion that countries that raise their national saving rate will keep most of that additional saving at home to finance increases in domestic investment is a key issue in thinking about various policies that increase national saving including budget surpluses, pro-saving tax policies, and investment-based Social Security reforms.

A second implication is the one emphasized by Obstfeld and Rogoff: that the United States will not be able to continue to have the present large (4.4 percent of GDP) current account deficit. I accept their general conclusion that the relative size of the current account deficit will decline and that this decline will require a decline of the dollar. But I would emphasize that they analyze the case of a zero current account deficit as just one possible outcome that can be a useful reference point for evaluating the implication of current account changes for the exchange rate.

There is no reason for the current account deficit to be zero even in the long run. A more plausible long-run restriction on the size of the current account deficit would be to require that the net external debt not grow faster than GDP in the long run.[11] That implies that the ratio

of the current account deficit to GDP equals the product of the nominal GDP growth rate and the ratio of the external debt to GDP. A 7 percent nominal GDP growth rate and net external investment position of 20 percent of GDP implies that a current account deficit of about 1.5 percent of GDP is consistent with a stable net external "debt" (i.e., investment position) ratio to GDP.

My own judgement is that a more likely evolution than the one taken as the central case by Obstfeld and Rogoff would be a smaller and more gradual decline of the current account deficit, responding in part to a relative slowdown in the U.S. economy, and therefore requiring a smaller decline of the dollar.

The large budget surpluses projected for the next decade in the United States—and particularly the ten-year surpluses of more than $2 trillion dollars associated with the Social Security program—will make it easier to reduce our current account deficit because they will cause a substantial rise in national saving. But we should understand that the reduction of the current account deficit would still require a decline of the dollar with the resulting increases in inflationary pressures.

## Endnotes

[1] See Section 2 for a discussion of such policies.

[2] See, e.g., La Porta et al. (1999).

[3] These same two factors may help to explain the otherwise unexplained growth of global trade that discussed in Mussa (2000).

[4] See Feldstein(1998 and 1999) for an elaboration of this analysis.

[5] The inability to finance such large current account deficits reflects the segmentation of the global capital market discussed in Maurice Obstfeld and Kenneth Rogoff (2000).

[6] One way to strengthen the banking system quickly is to allow foreign banks to provide most of the nation's banking services, as Argentina currently does. Doing so limits the ability of the government to use the domestic banks as agents of government economic planning and capital allocation.

[7] See Feldstein (1999) for a discussion of what emerging market countries can do to help themselves in general and the role of increased liquidity in particular.

[8] This can occur if European investors have more demand for the bonds of that company than their American counterparts, thus permitting the American borrower to get a lower net cost of funds by borrowing in Europe and swapping the funds back into dollars.

[9] For a further discussion of this process in the context of the Feldstein-Horioka puzzle, see Feldstein (1994).

[10] The authors provide a more complete explanation of their reasoning in Obstfeld and Rogoff (2000a).

[11] External debt is a shorthand here for the net external investment position of the United States. As Obstfeld and Rogoff note, that is now about 20 percent of GDP.

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