The Future of Global Financial Markets[1]
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1. Introduction

Forecasting is always difficult, especially when it involves the future. More than the usual degree of difficulty is involved when the task is forecasting the future of global financial markets. In the mid-1970s, when Ernesto Zedillo, the editor of this volume, and I were in graduate school at Yale, global financial markets and private capital flows to developing countries were just beginning to awaken from a long period of somnolence. Those who anticipated that World Bank loans and official development assistance would remain the predominant sources of external finance for developing countries were surprised by the rapid growth of bank lending to Latin America and Eastern Europe by money-center banks recycling the surpluses of oil exporters and selected industrial economies. But no sooner had observers assimilated these facts than lending to emerging markets collapsed in 1982 in response to rising interest rates in the U.S. and UK and debt crises in the developing world. The result was the lost decade of the 1980s, when resources flowed upstream from developing to developed economies and growth stagnated in Latin America. The inability of governments to credibly commit to repay their borrowings, it was argued, constituted a fundamental obstacle to sovereign lending to emerging markets, and efforts by the International Monetary Fund to paper over the cracks were dismissed as creating more problems than they solved.[2] But no sooner had observers accustomed themselves to this brave new world than nonperforming bank loans

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[2] See for example Bulow and Rogoff (1989).

were converted into bearer bonds. The Brady Plan jump-started the market in fixed income securities, which quickly became the vehicle for renewed lending to emerging markets.[3] Bond markets transferred an impressive quantity of resources to developing countries in the course of the 1990s, but the decade was also punctuated by a series of emerging-market crises that repeatedly interrupted the flow of finance, sent spreads skyrocketing, and prompted emergency intervention by the IMF. This period drew to a close with Argentina's default at the end of 2001. Borrowers and lenders drew back from the market as if they had finally taken the lessons of the 1990s to heart. Developing countries shifted from external deficit to surplus, accumulating unprecedented quantities of international reserves. They repaid external debt to their private creditors and the IMF. By early 2006 no major Latin American or Asian country was in debt to the IMF, and virtually the entire stock of Brady bonds had been retired from the market.[4] The United States emerged as the world's principal deficit country and capital importer, absorbing some two-thirds of the net savings of the rest of the world. But the idea, which gained currency following the Argentine crisis, that international investors had learned that the returns from lending to emerging markets did not justify the risks was again dissolved by the subsequent resurgence of flows into local markets and the decline in emerging market spreads to unprecedented lows (below 200 basis points in the spring of 2006).

[3] Announced by U.S. Treasury Secretary Nicholas Brady in March 1989 and ever thereafter associated with his name, the Brady Plan encouraged bank creditors to grant debt relief in return for greater collectability and liquidity of their remaining claims, linked that relief to policy reform, and provided for the conversion of nonperforming bank loans into more liquid claims (Brady bonds). Typically a country would issue both "par bonds" (equal to the full value of a tranche of loans but at a concessionary interest rate) and "discount bonds" (which bore market rates of interest but whose face value equaled only a fraction of the corresponding tranche of loans). Both classes of bonds were of a 30 year maturity.

[4] At the time of writing (spring 2006), the IMF had four stand-by and two extended arrangements under which disbursements are made, down from 21 such programs at the end of 1998. (I discuss the implications later in the paper.) Meanwhile, the stock of Brady bonds had declined from a peak of some $150 billion in 1996 to little more than $10 billion (where all bonds taken at face value).

If one thing is sure, it is that the future will bring more surprises. Any effort to forecast by mechanically projecting recent events is certain to be wrong. This uncertainty creates a dilemma for an author whose assigned topic is the future of global financial markets.

2. Major Developments

Table 1 summarizes the basic facts about capital flows to developing countries since the inauguration of the Brady Plan. This table highlights a number of striking aspects of recent experience.

- Private flows to emerging markets rebounded impressively from the turbulence of the late 1990s and from Argentina's 2001 default (the largest external debt default in history, following which the country adopted an uncompromising line in negotiations with its creditors).[5] The Institute of International Finance, in its the forecasts for 2006, projects private net flows of more than $350 billion, very considerably above levels attained anytime in the 1990s. So much for the view that investors had concluded that investment in emerging markets did not pay.
- The bulk of these private flows are equity investment, the majority of which in turn takes the form of direct investment in which the foreigner owns if not always a controlling stake then at least a quarter of the value of an enterprise.[6] This has been true, strikingly, for more than ten years. For all the attention paid to bond

[5] Historically, recovery rates on defaulted foreign bonds have been on the order of 60 per cent (Eichengreen and Werley 2000). The recovery rate for investors in Argentine bonds is an outlier in this regard; Byun and Oswald (2006) put it at 28 per cent through the spring of 2006. This could change, however, as a function of future negotiations with holdouts – if any – and of the performance of Argentina's GDP warrants, the rate of return on which varies with the country's growth (see also below).

[6] 25 per cent is the typical cutoff between portfolio investment and FDI used by international organizations and national statistical agencies when doing such tabulations.

issues and bank loans, in other words, it is FDI that matters most, at least quantitatively. To be sure, the first half of the 1990s was an exception: FDI was smaller than private net debt flows (bank lending, bonds, trade credit, other short-term flows), partly because the privatization of public enterprise had not reached the point where there were attractive opportunities for mergers and acquisitions, and partly because China had not yet emerged as a prime destination for FDI. But none of this changes the basic point: net FDI flows to emerging markets have remained strikingly stable in the face of macroeconomic and financial turbulence.

- The same cannot be said of private debt flows (medium- and long-term flows principally in the form of bank loans and bonds) After rising through the first half of the 1990s and showing impressive resilience in the face of the Mexican crisis, these fell sharply in 1998 following Asia's crisis, Russia's default, and the all-but-failure of Long-Term Capital Management. Between 1998 and 2001, activity on the bond market declined to the point where net new flows through this channel were running at barely a quarter of previous levels. International bank lending declined even more precipitously. After having been pressured at the beginning of 1998 to evergreen their loans, the banks then drew down their exposures. Net bank lending to developing countries, whose importance had surpassed that of the bond market, turned negative between 1999 and 2002. Even if it is not accurate as a general statement that the private sector had learned that investing in emerging markets is risky and altered its behavior accordingly, one class of investors, the commercial banks, does seem to have responded in this way. In contrast, flows through the bond market rebounded impressively. The

enthusiasm of foreign investors for emerging market debt drove spreads down to unprecedented lows in 2005-6, as noted in the introduction. The question is how much of this reflects improved fundamentals in the borrowing countries (strengthened commitments to low inflation, stronger budgetary positions, reforms of corporate governance and prudential regulation, and improved growth prospects) and how much reflects the low level of interest rates in the U.S. Europe and Japan, which encouraged investors to search for yield in other markets.[7]

- The uses to which developing countries have put foreign funds are very different than in earlier years. If we again focus on the emerging economies (countries with significant connections to global financial markets), we see that this set of countries has put into international reserves every single dollar of private capital received in the last five years, on net, from the rest of the world. This can be seen from comparing the lines denoted "private flows, net" and "reserves" in Table 2. Traditionally, a not entirely desirable side effect of capital inflows has been a spending binge by governments, firms and households which has driven up the real exchange rate, undermined export competitiveness, and diminished national creditworthiness, often precipitating a crisis. Spending by credit-constrained governments and households has been procyclical, and capital inflows, by relaxing that constraint, have amplified their response.[8] In the first decade of the 21st century, in contrast, the story has been different.[9] The entire private capital inflow – and more – has been set aside in the form of international reserves rather

[7] The markets' reaction to the normalization of policy rates in the money centers will presumably tell the tale.
[8] This is a well-known historical phenomenon emphasized by, inter alia, Fishlow (1986). It was then brought to the attention of policy makers in the 1990s by Calvo, Liederman and Reinhart (1994).
[9] At least in the aggregate.

than being used to finance additional purchases of consumer durables by households, to underwrite a construction boom, to support inefficient corporate investment, and to finance government budget deficits.

- The full picture, inevitably, is more complex, since emerging markets have also used private foreign funds to finance their residents' net investments abroad and to repay obligations to international financial institutions and official bilateral creditors. But the bottom line remains the same. These two additional outflow items have not prevented emerging markets from salting away the entire net foreign private capital inflows in international reserves because this set of countries has also been running current account surpluses since the turn of the century.[10] This is in contrast to the situation typical of the previous decade. It is another way of seeing that, contrary to the traditional pattern, emerging markets have not allowed capital inflows to affect their spending patterns this time around.[11]

This brings us to the issue of global imbalances and to the fact that the current account surpluses of emerging markets have as their counterpart the current account deficits of the United States (necessarily so, since the other advanced industrial countries are in neither substantial surplus nor substantial deficit).[12] This situation where a large high-income country is in substantial deficit vis-à-vis the rest of the world and lower-

[10] The picture is basically the same if we consider all developing countries (as in World Bank 2005) instead of just emerging markets. Low income countries have historically run slightly larger deficits/small surpluses. Interestingly, an exception is the beginning of the present decade, when they in fact ran somewhat larger surpluses.

[11] One might add the qualification "for better or for worse," the "for worse" aspect being that emerging economies – the emerging economies of East Asia in particular – have not contributed as much as otherwise to the growth of global demand. The result is that the United States was responsible in an arithmetic sense for the majority of the growth of global demand in the first half of the decade and incurred a large current account deficit, whose implications are explored momentarily.

[12] That is, they are in neither substantial surplus nor deficit as a group.

income countries are financing its external position has a peculiar feel for economists schooled in the history of the late 20th century.[13] This phenomenon is not easy to interpret, which is a polite way of saying that economists do not agree on its sources. The simplest way of making sense of the controversy is to recall that the current account is, by definition, the difference between investment (I) and savings (S) and that, in the absence of trade with other planets, the U.S. current account deficit (S-I) must equal the surplus of the rest of the world (S*-I*).[14] There are thus four classes of explanation for the growth of the U.S. current account deficit since the mid-1990s, focusing on, respectively, U.S. saving, U.S. investment, foreign saving and foreign investment.[15]

The first view emphasizes low U.S. national savings. Only corporate savings have held up well in recent years; both household savings and public savings, as conventionally measured, have declined sharply.[16] By 2005, U.S. gross national saving had fallen to 13.6 per cent of GDP, as measured by the IMF, down by 3.3 per percentage points from the 1983-2000 average and barely half the level prevailing in the rest of the world. The U.S. had already been running current account deficits on the order of 3 per cent of GDP on average in 1983-2000. Thus, as a matter of arithmetic the decline in savings can explain much of the subsequent rise in the U.S. current account deficit.

[13] Or for that matter, in the history of the early 20th century, net capital flows from high- to middle-income countries having reached historic highs in the period 1900-13. A systematic comparison, subperiod by subperiod, is Obstfeld and Taylor (2003).
[14] Here, as is conventional in the textbooks, a deficit is a negative balance, and asterisks denote foreign variables.
[15] I have used this approach to analyze the controversy over global imbalances in more detail in Eichengreen (2006).
[16] "Conventionally measured" alludes to the fact that the national income accounts do not include in national saving unrealized capital gains on residents' asset portfolios – a point to which I return momentarily.

Explaining this fall in the U.S. savings rate, much less suggesting what policy makers might do to reverse it, is not easy.[17] The obvious place to start insofar as we are interested in aggregate phenomena is with macroeconomic policies. The low level of interest rates in the United States since 2001 has supported a run-up in asset valuations. Households seeing their stock portfolios and real estate holdings appreciate can realize capital gains and thus have less incentive to save out of current income. The limitation of this explanation is that the normalization of the Federal Reserve's policy rates in 2004-6 did little to slow the growth of consumer demand. On the other hand, it did little to moderate the high level of asset valuations, at least in the short run, which may just be a way of saying that monetary policy works with long and variable lags.

Tax policy is commonly cited as the source of the decline in U.S. public saving. Between 2001 and 2005 there was a swing in the fiscal balance from +2.5 per cent of GDP to -3.5 per cent of GDP. To a large extent this reflected a decline in federal tax revenues as a share of GDP, rather than any increase in federal spending, and that decline in tax take was in turn a function of the discretionary tax cuts pushed through by the Bush Administration toward the beginning of the decade. This deterioration in the fiscal balance would have led to a matching decline in national saving and a matching deterioration in the country's current account balance, other things equal.

That other things are not always equal has been a theme of writings by U.S. Treasury officials (some of which have appeared in the press under headlines like "Don't Blame Just Us").[18] Historically, the links between the fiscal balance and current account

[17] The difficulty of explaining variations in savings rates across households and over time has given rise to a literature in behavioral economics where nonstandard variables are invoked to explain these variations. See for example Choi, Laibson, Madrian and Metrick (2001).
[18] See U.S. Treasury (2006) and Snow (2006).

balance have been weak. It is not hard to find periods like the mid-1990s when the U.S. budget balance and current account balance moved in opposite directions.[19] A deterioration in the fiscal balance that raises interest rates will discourage private spending and result in a significantly less than commensurate deteriorate in the current account balance. Ricardian equivalence points in the same direction. But neither the observation that other things are not always equal nor evidence that the link from budget deficits to current account deficits is less than one to one justifies dismissing this variable as irrelevant. Only extreme versions of the argument suggest that fiscal policy does not matter for the current account.

For every article emphasizing declining national saving as the proximate source of the U.S. current account deficit, there is another pointing to buoyant investment.[20] This is the view that foreign funds are attracted to the United States by the flexibility of its markets and by the country's facility in developing and applying new technologies, which together boost the profitability of new investment. This view is buttressed by the literature on the "new economy" and evidence of accelerating U.S. productivity growth centered on information-technology-using sectors like retailing, wholesaling, and financial services. America's current account is in deficit, in this view, because the articulation of global financial markets facilitates the flow of investment finance toward the national destination, the United States, offering the highest returns.[21]

The most fundamental objection to this argument is that little increase inU.S. investment is visible in the data. The aggregate U.S. investment rate rose by only 1 per

[19] The budget strengthening, the current account weakening.
[20] See e.g. Cooper (2004), Clarida (2005), and Backus and Lambert (2005).
[21] In this vein, the 2006 Economic Report of the President referred to the external imbalance as "the capital account surplus" rather than "the current account deficit" (United States Council of Economic Advisors 2006).

cent of GDP between 1991 and 2004, a fraction of the contemporaneous rise in the current account deficit.[22] (See Table 3.) While private capital inflows financed the U.S. external deficit in the second half of the 1990s, during the Nasdaq "bubble," in the first half of the present decade net private capital flows to the United States tapered off and the bulk of the finance for the U.S. current account has been provided by foreign central banks, whose motives are not easily characterized in terms of profit maximization. The destination of those flows has rotated away from the equity market, which is where one would expect foreign investors attracted by the siren song of the new economy would place their funds, and toward U.S. government and agency securities.

The third school of thought (e.g. Bernanke 2005, Hubbard 2005) points to a glut of savings outside the United States. Gross world savings rose from 22.9 per cent in the 1990s to 23.4 per cent in 2000-2, 23.9 per cent in 2003 and 24.9 per cent in 2004. All this savings has to go somewhere. China is notable for its extraordinarily high gross savings rates (as high as 45 per cent of gross national product if the official statistics are to be believed), and for their sharp rise (by as much as ten percentage points of GDP) between 1991 and 2004. But the phenomenon is more general, as it must be if it is to help explain global capital flows.[23] In fact, gross savings rates rose by the same amount, ten per cent of GDP, in the rest of developing Asia over this period. They rose by two percentage points of GDP in Latin America.

The final school of thought emphasizes that, in contrast to this gradual rise in gross world savings, gross world investment has been essentially flat. With investment

[22] Data are from BIS (2005).
[23] Since China is still too small to play a large role in producing global outcomes when its national income is valued at market exchange rates – which is the relevant measure for understanding international financial transactions.

up slightly in the United States, the implication is that it must have fallen in the rest of the world. Table 3 shows that the investment strike was centered in the euro area, Central and Eastern Europe, and East Asia ex China, with East Asia accounting for the bulk of the shift. Japanese investment was depressed by the decade-long slump that set in after 1992, while investment in the newly industrializing economies ex China fell in the wake of the 1997-8 crisis and never recovered fully. These observations are consonant with the view that the global imbalance is primarily a trans-Pacific phenomenon.

3. The Role of Financial Markets

To what extent can these facts be explained by developments in global financial markets? As noted above, there are few places where the impact of new information and communications technologies has been more pronounced than in the financial sphere. Their impact, combined with that of the relaxation of regulatory restrictions on foreign financial investment, has been profound. Falling transactions and information costs have led to a reduction in home bias and to an increasing volume of two-way capital flows. The results are evident in a rise since 1990 in the share of residents' holdings of foreign bonds and equity relative to domestic bonds and equity in countries like Canada, Germany, Japan and the United Kingdom.[24]

It is important to recognize the relatively recent vintage of this phenomenon. While the securitization of financial claims has been underway since at least the 1970s, most extensively in the United States, the relaxation and removal of capital controls is relatively recent. In the advanced-industrial countries other than the United States, it

[24] See the data in Milesi-Ferretti and Lane (2005).

dates only from the 1980s. In emerging markets the trend is more recent still (Eichengreen and Mussa et al. 1998).

Be this as it may, the effects are undeniable. One consequence has been that the share of portfolios devoted to foreign financial assets has risen in both advanced countries and emerging markets. Two corollaries of the increased willingness of foreigners to adjust their portfolio shares in response to changes in expected rates of return are that the size of current account balances has risen on average and that their dispersion across countries has widened. On both counts, then, external deficits have become easier to finance. While the evidence of increased dispersion of current account balances is less pronounced in emerging markets than in the advanced countries, recent replications of the analysis in Feldstein and Horioka (1980) suggest that even in the developing world the trend has been in the same direction.

But increased capital mobility can be a mixed blessing. In the present context one can imagine how the decline of obstacles to capital flows and the greater elasticity of external finance with respect to changes in rate of return differentials can moderate the pressure for countries to address current account and fiscal imbalances. The United States has been able to finance its twin deficits more cheaply, limiting the pressure to adjust. This phenomenon, known as the Greenspan Conundrum, is plausibly attributable to the influence of capital inflows.[25] As a result of the single market and the euro, there has been an increase in capital mobility among European countries (Blanchard and Giavazzi 2002), to which the big ones have responded by relaxing budgetary discipline. Developing countries enjoyed a sharp compression of bond spreads in the first half of the

[25] For evidence see Warnock and Warnock (2005).

decade, and in response to this increase in investor demand for their debt securities they allowed their public debt ratios to rise further.[26]

Financial innovation has also figured in the substitution of the bond market for syndicated bank loans as the mechanism through which emerging markets can meet their international financial needs. Bonds, recent experience suggests, have superior risk-sharing characteristics. For lenders, it is easier to build and manage diversified asset portfolios and easier to close out positions, assuming of course that there exists a liquid secondary market. For borrowers, bonds have the advantage of longer maturity. These favorable risk-sharing characteristics are further enhanced by efforts to provide for contingencies in the design of bond covenants, for example by including collective action clauses and trustee provisions to facilitate negotiation in the event that there is the need for restructuring, and by indexing returns to the rate of growth (as in the case of Argentina's GDP warrants) so that both lenders and borrowers share the fruits of policy reform.

These observations render it somewhat perplexing that bank credit dominated bond finance in the first half of the 1990s. Here it is important to recall that bond markets are not created out of thin air. Purchasing bonds is attractive only if there is a critical mass of other purchasers; it took the Brady Plan to ignite the growth of the market, and time to develop its liquidity. The informational prerequisites for a deep and liquid bond market are even more demanding than those for bank intermediation, banks being in the business of bridging information gaps. Finally, banks under the impression

[26] This is compatible with the emphasis in the previous section on how developing countries have exercised more spending restraint in than previous lending booms. The point here is that such restraint (and the primary surpluses associated with it) have still not been sufficient to prevent debt ratios from continuing to rise.

that they were too big to fail may have been encouraged to lend to emerging markets by the expectation that if things went wrong they would be bailed out by the national authorities and multinational financial institutions. The harder line taken by the authorities subsequently thus may have accelerated the shift toward the bond market.

Historically, emerging markets have accessed bond finance by issuing foreign-currency-denominated debt securities on international markets. These bonds address the maturity-mismatch problem, since their term to maturity is longer than that of the typical bank credit, but not the currency mismatch problem, since the government and many private-sector borrowers accrue revenues in the domestic currency but pay interest and amortization on international bonds in dollars. Only recently have emerging markets had success at issuing domestic-currency-denominated debt securities on international markets and in attracting foreign investors to their local markets, where fixed-income securities tend to be denominated in the domestic currency. Starting in 2003 a number of Latin American governments, Brazil, Colombia and Uruguay among them, placed domestic-currency-denominated government bonds on foreign markets for the first time. These bonds are reasonably long term: they mature between 2010 and 2016. They thus pass the maturity and currency risk on to the borrower and in this way are consistent with recent concern with the double-mismatch problem.[27] They are attractive to international investors because they bear higher real yields than comparable foreign currency issues. This is tolerable for the issuing governments because global interest rates have been exceptionally low by historical standards.

[27] On the other hand, the investor is largely free of convertibility risk because the coupon and/or principal is paid in dollars (computed at current exchange rates).

Some, like Tovar (2005), question the permanence of this new form of market access. Ample liquidity has made it easy for emerging markets to issue all kinds of innovative debt securities; if central banks drain liquidity from global markets and there is a flight to quality, it is not clear that investors' appetite for bonds denominated in Latin American currencies will survive.[28] Since the turn of the century, both economic policies and exchange rates have been strong in Latin America, leading international investors to bet on further currency appreciation. But Latin American currencies cannot appreciate forever. Sooner or later extrapolative expectations will be disappointed. Investor enthusiasm for international bonds denominated in pesos may have been a passing phase.

The most widely-commented-upon aspect of this trend is the participation of foreign investors in local markets. The share of foreign investors in total domestic issuance rose from less than six per cent at the turn of the century to more than 12 per cent in 2005. The growth of the institutional investor community has been important in this connection, with hedge funds, mutual funds, pension funds and insurance companies all adding local currency bonds of emerging markets to their portfolios. So too have been stable macroeconomic policies, strong growth outturns which have enhanced the issuers' capacity to service debt, improvements in the provision of market-relevant information (as more countries adopt internationally-recognized accounting standards and subscribe to the IMF's data dissemination standards and systems), and a measures to strengthen market infrastructure and regulation. In addition to fostering investor confidence, strong policies and growth have delivered credit-rating upgrades that have made possible the participation of institutional investors whose covenants permit them to take positions

[28] Thus, Argentina was able to issue a global bond, a eurobond, and a private placement all in pesos in the mid-1990s, but the flight to quality that followed the Russia-LTCM crisis closed off this incipient form of access to international markets.

only in investment-grade securities.[29] Unusually high levels of global liquidity have further enhanced the attractions of these markets, while the privatization of pension funds in emerging markets has augmented the demand for local-currency bonds by creating a natural constituency of domestic investors with an interest in purchasing such bonds in order to match the maturity and currency composition of their liabilities.[30] Here, too, the question is how much of this enthusiasm is permanent and how much is a passing phase reflecting the unusually low level of yields on the mature markets and the ample supplies of liquidity. And it is important to bear in mind that, as the IMF has put it, "foreign investors still provide only a small share of total domestic financing…"[31]

Still, emerging markets are making hay while the sun shines. Countries like Brazil have sought to capitalize on investor enthusiasm to insulate themselves from currency mismatches. They have bought back dollar-denominated and dollar-linked debt (not just their Brady bonds but other dollar-denominated and dollar-linked bonds as well), issuing local currency debt in its stead. Having been hammered by adverse balance-sheet effects when the exchange rate depreciates, governments have evidently concluded that the currency mismatch problem is the weak link in the financial chain. But, especially in Latin America, much of this local currency debt is short term, bears a floating interest rate, or is indexed to inflation, investors evidently retaining doubts about the stability of inflation and interest rates. (See Figure 1.) In effect, then, the authorities are trading currency risk for interest rate risk. At a time when the exchange rates of many

[29] Thus, in 2005 the average rating of countries included in J.P. Morgan's global index for the bonds of emerging market economies (the EMBIG) rose above BB for the first time since its advent. Hedge funds are not subject to such restrictions, and many of them thus specialize in exotic sub-investment-grade fixed-income securities, but they are only one member of the growing class of foreign investors in local markets.
[30] Some observers will insist that the prominence of pension and provident funds in the local markets of many developing countries is a mixed blessing, since pension funds are buy-and-hold investors and this buy-and-hold behavior is not conducive to market liquidity.
[31] IMF (2006a), p.99.

emerging markets are strong relative to historical norms, protection against future depreciation is worth having. But given that global interest rates have also been low, taking on additional interest-rate exposure might not be the most prudent crisis-prevention strategy.

Finally, financial factors play a role in facilitating the FDI that remains the single most important component of net capital flows. Firms require liquidity for both greenfield investment and cross-border mergers and acquisitions. The development of financial markets on which those funds can be mobilized and transferred has been an important factor in the growth of foreign-direct-investment transactions. To be sure, the growth of FDI has more than one cause. It has been supported by enterprise privatization that has augmented the population of target firms available for acquisition. It has been facilitated by high natural resource prices, the resource sector being the principal destination for FDI in the poorest countries. It reflects the development of global and regional supply chains and the emergence of China, now the single largest destination for FDI, as the assembly platform for East Asia and the rest of the world. It has been encouraged by improvements in the institutional and policy environment in the developing world. And it has been facilitated by the European Union's single market, which on paper has eliminated statutory barriers to intra-European M&As. Still, it is hard to imagine that there would have been a ten-fold increase in the volume of cross-border mergers and acquisitions in the 1990s had there not also been explosive growth in the liquidity of global financial markets (di Giovanni 2005). It is widely argued that countries should encourage FDI as a relatively stable form of foreign investment in part by regulating other cross-border financial transactions. This evidence suggests that the

answer is not so easy, since there are complementarities between FDI and other capital account transactions that foster financial development.

In practice, whether to remove restrictions on international financial transactions, which was the debate in the 1990s, has given way to the question of how quickly to remove such restrictions and how to sequence capital account liberalization with other reforms. Academics continue to debate the merits of capital account liberalization, but policy makers in emerging markets share few of their reservations.[32] They see that the advanced industrial countries no longer limit the participation of foreign investors in domestic financial markets or the ability of residents to take positions in financial markets abroad. Policy makers in emerging markets thus see capital account liberalization as part of the larger process of economic and financial development. They appreciate how globalization reinforces the fundamental argument for liberalizing international financial transactions: as a country is more deeply integrated into the global economy, it has an incentive to specialize further in order to capitalize on its comparative advantage, in turn making financial diversification more valuable as a risk-sharing device.

But policy makers in emerging markets also absorbed the lesson of the 1990s that financial opening should proceed gradually and be carefully sequenced with other policy reforms. A one-sentence summary of the lessons of the Asian crisis is that capital account liberalization in advance of measures to strengthen domestic financial markets, reform corporate governance and adapt the macroeconomic policy regime to the imperatives of open capital markets can be a recipe for disaster. Taking these lessons to

[32] With good reason: since this is one of those topics where context is critical for conditioning the effects, neither theory nor econometrics suggest unconditional answers. For a sampling of scholarly work on this subject see Eichengreen (2001).

heart, emerging markets have moved away from pegged exchange rates, adopted flexible inflation targeting as a framework for monetary policy, and strengthened their budgetary institutions. They have recapitalized their banking systems, strengthened supervision and regulation, and reformed corporate governance to pave the way to life with an open capital account. The question is whether these reforms have proceeded fast enough, given the growing exposure of their economies to international capital flows.

China epitomizes the dilemma. By standard measures of investor protection, corporate governance remains weak. Estimates of the value of nonperforming loans in the banking system range upward of 40 per cent of GDP. Despite having announced a new, more flexible exchange rate regime in the summer of 2005, the authorities display a reluctance to countenance significantly greater currency flexibility. But, like it or not, the Chinese economy is becoming more open to capital flows. As foreign manufacturing firms gain a greater presence in China and Chinese firms set up abroad, both open additional channels through which funds can flow. The same is true of financial firms: as foreign financial institutions are allowed to take stakes in Chinese banks as part of the authorities' strategy for upgrading the financial system, it becomes easier to move funds in and out of the country. The monetary authorities are anxious to foster the development of hedging markets so that banks and firms can protect themselves from exchange rate volatility, and to encourage the supply of hedging instruments they have been liberalizing requirements for participation in the foreign exchange market.[33] Some observers warn that the Chinese authorities are moving too quickly on capital account liberalization and

[33] In August 2005 they expanded the forward market by allowing all banks, including foreign banks, with licenses to trade in the interbank foreign exchange market to transact renminbi forward and swap contracts with clients as well as in the interbank market, and it allowed the banks to determine forward rates independently. Trading in renminbi-denominated interest-rate swaps began in February 2006 when the People's Bank of China published a list of 18 banks approved to deal in such swaps.

that the further removal of restrictions on international financial transactions should wait on other reforms.[34] But there is no doubt that the Chinese authorities, seeing their East Asian neighbors having been burned by premature capital account liberalization, are duly aware of the risks.

4. Crisis Management and Reform

This brings us finally to financial instability and its management. Conventional wisdom is that crisis risk has declined since the 1990s. Emerging markets have been running current account surpluses rather than deficits, as noted. They have accumulated international reserves, in some cases far more than the equivalent of six months worth of imports, the standard benchmark for prudence. They have strengthened financial regulation and macroeconomic policies and have been rewarded with upgrades from the credit rating agencies. As the result of buybacks and debt exchanges, the share of foreign-currency-denominated obligations in total sovereign debt has declined. The share of external sovereign debt maturing in under a year has also declined, albeit more slowly.

Meanwhile, the contagious spread of instability appears to have receded, reflecting declining leverage in the hedge fund community, broadening of the investor base, and weakening of the common-creditor channel emphasized by Calvo (1999). Improvements in information dissemination have made it easier for investors to discriminate between good and bad credit risks. Didier, Mauro and Schmukler (2006) show that the average six-month correlation of daily returns across countries was significantly lower in 2000-5 than 1994-9. Whereas the volatility of daily returns on J.P. Morgan's global emerging market bond index (EMBIG), an indicator of the general level

[34] See e.g. Prasad, Rumbaugh and Wang (2005) and Eichengreen (2005).

of instability in emerging markets, spiked up to 35 per cent at the time of Mexico's crisis, there was only a small increase in volatility, from 5 to 10 per cent, when Argentina defaulted in 2001. Where other countries, from Croatia, Colombia and Malaysia to Brazil, Venezuela and Ecuador, saw their returns dragged down to negative territory in 1998, the year of Russia's default, no other member of the EMBIG experienced negative returns in 2001, the year of Argentina's default.[35] None of this rules out the possibility that individual countries will still get into trouble. But because policies are stronger, trouble will occur less frequently. And the likelihood of systemic crises where a number of consequential countries are simultaneously engulfed is now significantly less than in the 1990s.

Or so it is said. Economics being the dismal science, it is the role of economists to suggest that all this optimism may be overdone. Reassuring statements that crisis risk and contagion have declined significantly, as in IMF (2006a), were issued in an exceptionally favorable period for emerging markets. Global growth in 2006 was forecast to run at the highest level in 35 years. High commodity prices boosted the terms of trade and export earnings of exporters of energy and raw materials. Interest rates were unusually low given the stage of the business cycle, reflecting aggressive cuts in policy rates at the start of the decade and the measured pace at which the Federal Reserve, European Central Bank, and Bank of Japan were prepared to back them out. Financial markets being awash with liquidity, spreads on sub-investment grade paper, not just speculative emerging market debt but also the junk bonds of corporations in advanced-industrial countries, fell to extraordinarily low levels. It is not hard to imagine the dangers of generalizing from exceptional circumstances that will not last forever.

[35] Details are in Byun and Oswald (2006).

At the country level, external debt was simply being replaced by domestic debt, and currency mismatches by maturity mismatches, without reducing overall levels of indebtedness. Rollover risk (the danger that maturing debts cannot be re-funded) had been reduced more by pre-funding future borrowing in what was an exceptionally favorable financial environment than by reducing indebtedness and lengthening its maturity. In cases like Hungary and Turkey, observers could still point to large external deficits and evidence of real overvaluation. Nor was it hard imagine how a disorderly correction of global imbalances (a decline in foreign finance for the U.S. current account deficit, a sharp fall in the dollar and U.S. import demands, and a rise in global interest rates) could significantly aggravate the problems of these countries and then spill over to other markets.

Does the international policy community, spearheaded by the IMF, have the capacity to limit such dangers? Since the breakdown of the Bretton Woods System that the institution was created to oversee, observers have questioned whether the Fund still has a mission and tools appropriate to its task. Recently, however, reform discussions assumed a new sense of urgency. It seemed as if developing countries, flush with dollars, no longer needed the Fund. Argentina and Brazil repaid the IMF ahead of schedule. Asian governments, having suffered embarrassment from having to accept onerous conditionality in 1997-8, promised their constituents that they would never put themselves in this position again. As of mid-2006, the IMF had only 6 arrangements under which it lent money, down from 21 in 1998. Since the institution derives income from lending, this created the delicious prospect that it might have to undergo the kind of structural adjustment that it typically demands of its clients. In addition, the IMF found

itself with little leverage over the problem of global imbalances that constitutes the main threat to international financial and economic stability. All this created the specter, according to King (2006), that the Fund might slide into obscurity.

The IMF's response had three elements.[36] One was to create a new facility through which substantial amounts of assistance could be automatically disbursed to countries whose policies were fundamentally sound but that were nevertheless at risk from contagion. Second was a selective increase in quotas to provide the institution with additional resources and correct the underrepresentation of fast-growing emerging economies. Third was the reform of surveillance to enhance the IMF's capacity to address the cross country spillovers and systemic financial implications of situations like the twin deficits of the United States.

It is possible to change how the IMF goes about its business only if there exists a broad coalition of countries favoring a particular reform, since no one entity possesses the broad executive powers necessary to unilaterally implement new procedures. In the present instance, reform presupposes agreement on the desirability of a new facility for which countries with sound policies would be automatically prequalified. There are academic arguments for such a facility (for example, Cohen and Portes 2003 and Cordella and Levy-Yeyati 2005). But there are also objections. No single criterion (neither the debt ratio nor the soundness of the banking system, for instance) provides an adequate basis for deciding whether a country's policies are sufficiently sound for it to receive assistance without being subject to additional conditions. If the decision of who qualifies inevitably involves judgment and discretion, then the idea that prequalification can be automatic is a pipedream.

[36] See IMF (2006b).

Moreover, if policies deteriorate, a previously prequalified country may have to be disqualified, potentially precipitating a crisis. Emerging markets are understandably reluctant to accept any automatic procedure that exposes them to this risk. They insist on retaining the option of deciding whether to apply for assistance. This suggests that the result of the latest round of discussions may only replicate experience with the abortive Contingent Credit Line facility that was allowed to lapse earlier this decade, to which no country applied for fear of signaling the existence of underlying weaknesses. All this implies that the IMF's future lies not in some high-tech, automatic-disbursing facility but in more business as usual. Eligibility for assistance will have to be decided case by case, on the basis of judgment and discretion, just as in the past. Reform, in this view, should focus instead on streamlining the procedures through which such decisions are reached.

Quota increases to enhance the representation of fast-growing emerging markets would enhance the legitimacy of the Fund by making its governance more representative of its membership and give the institution additional resources to lend to members seeking to navigate increasingly liquid global financial markets. In the spring of 2006 the United States indicated that it was prepared to support limited quota reform so long as other generously represented regions (read Europe) similarly agreed to a reduction of their voting shares. Evidently, American officials had come to appreciate the advantages of working through the IMF to address certain global problems, at least. But they also saw that their emerging-market counterparts, including China, would be reluctant to do so as long as they were inadequately represented in the institution. However, significantly enhancing their representation would require not simply an incremental increase in quotas for emerging market economies and a marginal reduction in U.S. and European

voting shares, but a sharp cut in the European share and a reduction in the number of chairs on the Executive Board occupied by European countries (Europe occupying as many as nine of the 24 chairs depending on rotation).

Another argument in support of such reform is that balance of payments problems between euro area states are no more possible with the advent of the single currency than are balance of payments problems between New York and California. This is a rationale for ignoring intra-European flows in quota calculations (just as they ignore flows among U.S. states), which would work to significantly reduce the voting shares of euro area countries. The latter might be prepared to countenance this if at the same time their votes were consolidated in a single chair. Leech and Leech (2005) and Bini-Smaghi (2005) calculate that if the euro area voted as a bloc it would become the critical swing voter in the IMF, even with a reduced voting share. In addition to freeing up Executive Board seats for emerging markets, such reform might permit the board to be downsized, streamlining decision making. The creation of a single euro area chair is contingent, however, on the willingness of euro area countries to speak with one voice, something that they so far have been unable to do in the IMF.

The third dimension of reform involved efforts to multilateralize IMF surveillance. At their spring 2006 meetings the International Monetary and Financial Committee of treasury and central bank officials who serve as the IMF's steering committee agreed that the Fund should adopt "a new focus of surveillance on multilateral issues, including global financial issues, and especially spillovers from one economy on others" (IMF 2006c). Evidently, the committee had in mind problems like global imbalances, whose disorderly correction could be more disruptive for other countries than

for the United States itself, and whose smooth adjustment requires coordinated policy initiatives by several countries. The standard package includes measures to slow the rate of growth of absorption in the United States together with initiatives to stimulate the rate of growth of absorption in other regions, notably Asia, so that global demand remains unchanged, all accompanied by depreciation of the dollar against other currencies to accommodate this change in the balance of spending (see e.g. Cline 2005). This would seem to be a prima facie case where reviews and surveillance organized on a country-by-country basis are inadequate to the task.

The multilateralization of surveillance (some would say the re-multilateralization of surveillance) is consistent with the IMF's original mandate, the Fund having been created to discourage policies that threatened the stability of the international monetary system.[37] The question is what a multilateral approach would mean when the rubber hits the road. The IMF already publishes simulations of its global economic model.[38] These scenarios, designed to draw out the implications of national policies for financial conditions and to highlight cross-border spillovers and implications for the global system, are discussed in the Executive Board prior to publication. In other words, the consciousness-raising part of the process is already in place. Bringing together treasury secretaries and finance ministers rather than simply their delegates (members of the Executive Board) might add value, but there already exist other talking-shops and opportunities for bilateral discussion. Unless IMF management was prepared to be blunter in warning of global risks, and to do so publicly as well as privately, it is not clear

[37] Thus, provisions in the original Articles of Agreement like the "scarce currency clause," under which other countries could restrict transactions with a country whose chronic surpluses threatened to place dangerously deflationary pressure on the international monetary and commercial system, were applied precisely in acknowledgment of this multilateral responsibility.
[38] In its *World Economic Outlook*, which appears twice a year.

how this fillip on its mandate would change anything. As always, IMF staff and management have an incentive to mince their words in order to avoid being accused of precipitating a crisis. And when countries like the U.S. and China, who are among the Fund's principal shareholders, stand to be on the receiving end of its unwelcome advice, it is hard to imagine that they would encourage the institution to speak out and let the chips fall as they may.

This is the problem of global governance in a nutshell. The IMF is a creature of its shareholders. Countries, especially large countries unlikely to find themselves in the position of having to borrow from the Fund, will delegate sovereign prerogatives only when they see doing so as in their self interest. Thus, the U.S. Treasury has traditionally maintained a hands-on policy toward the institution designed to ensure that its lending decisions and conditionality further the American interest. Recently, however, Treasury appears to have gained an awareness of problems that arise when the IMF is seen as an agent of the U.S. government and an appreciation of the advantages of delegating certain controversial decisions – over emergency lending, for example – to a truly multilateral Executive Board. British officials have similarly made the case that a more independent IMF would be a more efficient steward of global financial stability.[39]

A more independent IMF would be better able to speak out. Blunt speech is the only instrument possessed by Fund and by the global economic and financial community to encourage policy adjustment by large countries.[40] Until the United States, China and

[39] Again see King (2006).

[40] The U.S. Treasury has a process by which other countries may be declared currency manipulators in the event that it judges their exchange rate policies to be contrary to the international interest, in which case import duties and other sanctions can be imposed. A review of this mechanism is in Frankel (2006). But this being the decision of one national government, it lacks legitimacy internationally. And there is a sense in which the initiating country only ends up shooting itself in the foot.

the institution's other large shareholders recognize that it is in their own interest to strengthen this instrument, it is hard to imagine that the multilateralization of surveillance will amount to much.

5. Conclusion

It is tempting to conclude that global capital markets have reached the point of no return. Capital flows across borders have risen to new heights. This is true first and foremost of foreign direct investment, which has been stimulated by enterprise privatization, the development of global production networks, and the ready availability of finance for mergers and acquisitions. It is hard to imagine a return to significantly lower levels of FDI, since many of the facilitating conditions – the advent of the Internet, for example, which facilitates cheap communication with foreign branch plants, and instantaneous data transfer between cash registers at retail outlets and foreign production facilities – are permanent. The same is true of foreign portfolio investment. All of the advanced countries and a number of developing countries have relaxed or removed their most significant capital controls, and in neither world do policy makers show any interest in going back. At the same time, policy makers display more awareness of the dangers of excessive reliance on portfolio capital. Prudential supervision and regulation, corporate governance and macroeconomic policies have been strengthened to accommodate these changes in the financial environment. Countries have accumulated reserves as protection against capital account reversals. They are more successfully resisting the temptation to expand public spending and acquiesce in a significant increase in private spending in periods when a large volume of foreign finance is flowing in. It is hard to imagine that what has been learned, often at considerable cost, will now be forgotten.

All this makes it important to recall that this is not the first time that financial markets are significantly globalized; this was also true before World War I. What many contemporaries regarded as a permanent condition was, in the end, only a passing phase. Global financial markets shut down in the 1930s and then took two generations to recover. This resulted from an unfortunate confluence of factors: perverse macroeconomic policies, nationalistic trade policies, poorly regulated financial markets, and the absence of a framework for international cooperation, all against the backdrop of escalating diplomatic and political conflicts.[41] Optimists will say that there have been significant improvements in the conceptualization and implementation of macroeconomic policies in the interim. The multilateral trading system is more deeply entrenched; it is institutionalized courtesy of the World Trade Organization. Financial markets and institutions are better regulated. We possess a stronger multilateral framework, starting with the IMF, to facilitate cooperation on the regulation of financial markets and the conduct of macroeconomic policies.

Pessimists will respond that a nationalist backlash is still possible. The United States, seeing its bilateral trade deficit with China explode, continues to threaten unilateral action. In Latin America, where the benefits of globalization have been slow to trickle down to the poor, populism is alive and well. The privatization of public enterprise that has supported foreign direct investment has uncertain prospects in the wake of Bolivia's re-nationalization of its energy sector in 2006. The disorderly correction of global imbalances, if it involves sharp shifts in exchange rates and significant increases in interest rates, could again place global financial stability at risk.

[41] The story is nicely told, with these same implications in mind, by James (2002).

Kurt Vonnegut might have had this set of issues in mind when he wrote that "History is merely a list of surprises. It only prepares us to be surprised yet again." It will be interesting to revisit this paper in, say, 15 years in order to see what the surprises turned out to be.

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Table 1. Capital Flows to Emerging Markets, and their Components, 1989-2004

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004[e]
Current account balance	-44.7	-17.8	-72.3	-80.2	-128.6	-85.5	-106.5	-83.6	-87.2	-93.7	-8.0	43.6	16.9	72.0	112.8	152.7
As % of GDP	-1.2	-0.4	-1.8	-1.9	-3.0	-1.9	-2.1	-1.7	-1.7	-1.6	-0.1	0.8	0.4	1.3	1.8	2.0
Financed by:																
Net equity flows	24.5	28.6	41.4	59.7	116.5	133.2	125.8	161.4	190.6	178.1	195.1	178.6	180.9	159.8	176.6	192.3
Net FDI inflows	21.2	24.1	33.4	45.6	68.2	90.0	105.6	128.6	168.1	171.5	182.4	166.2	174.8	154.0	151.8	165.5
Net portfolio equity inflows	3.3	4.5	8.0	14.1	48.3	43.2	20.2	32.9	22.6	6.6	12.7	12.4	6.0	5.8	24.8	26.8
Net debt flows	50.0	58.0	63.5	95.1	108.6	72.0	151.8	123.7	106.9	54.9	15.4	-6.2	-3.5	8.9	62.2	84.1
Official Creditors	20.5	27.3	30.5	24.7	26.8	15.6	38.8	3.8	12.9	34.4	13.9	-5.8	27.0	5.2	-11.6	-24.9
World Bank*								7.3	9.2	8.7	8.8	7.9	7.5	-0.2	-1.2	-1.4
IMF*								1.0	3.4	14.1	-2.2	-10.7	19.5	14.0	2.4	-10.9
Others*								-4.5	0.4	11.6	7.3	-3.0	0.0	-8.6	-12.8	-12.7
Private Creditors	29.5	30.7	33.0	70.4	81.8	56.4	113.0	119.9	94.0	20.5	1.5	-0.4	-30.5	3.7	73.8	109.0
Net m-l debt flows	12.8	15.6	13.9	34.5	48.3	41.3	54.1	82.5	84.8	85.0	21.6	7.4	-6.6	0.9	24.9	55.4
Bonds	3.2	1.0	8.2	8.6	33.0	28.9	23.4	49.5	38.2	39.7	29.8	17.5	11.0	11.2	28.1	63.0
Banks	1.8	4.0	4.0	14.8	4.7	8.2	28.6	30.7	43.8	50.4	-6.8	-5.8	-11.0	-3.8	3.1	-1.8
Others	7.9	10.5	1.7	11.1	10.7	4.2	2.1	2.3	2.9	-5.2	-1.5	-4.3	-6.5	-6.5	-6.3	-5.7
Net s-t debt flows	16.7	15.1	19.0	35.9	33.4	15.0	58.9	37.4	9.2	-64.5	-20.1	-7.9	-23.9	2.8	48.9	53.6
Balancing item[a*]								-111.2	-157.5	-122.9	-169.1	-169.1	-112.5	-69.0	-59.9	-50.9
Change in reserves (- = increase)		-37.4	-53.2	-14.9	-63.8	-60.5	-101.2	-90.4	-52.9	-16.3	-33.4	-46.8	-81.7	-171.7	-291.9	-378.2
Memo items:																
Total foreign aid-ex tech coop grants	19.2	28.2	35.1	30.5	28.4	32.7	32.8	26.7	25.3	26.7	28.5	28.7	27.9	32.2	43.4	47.4
Net private flows (debt + equity)	54.0	59.3	74.4	130.1	198.3	189.6	238.8	281.3	284.6	198.6	196.6	178.1	150.3	163.5	250.4	301.3
Net official flows (aid + debt)	39.7	55.5	65.6	55.2	55.2	48.3	71.6	30.5	38.2	61.1	42.4	23.0	54.9	37.4	31.7	22.5
Workers' remittances**	24.5	30.6	31.2	36.3	38.5	43.6	48.1									
Total net capital flows (private/official)*								311.8	322.8	259.6	239.1	201.1	205.2	200.9	282.1	323.8

Notes: e = estimate

a. Combination of errors and omissions and net acquisition of foreign assets (including FDI) by developing countries.

* Data available for 1996-2004 only.

** Data available for 1989-1995 only.

Sources: GDF 2002; World Bank Debtor Reporting System and staff estimates; IMF, *Balance of Payments Yearbook*, various years; and Dealogic Bondware and Loanware.

Table 2. Emerging Economies' External Financing
(Billions of U.S. Dollars)

	2000	2001	2002	2003	2004	2005[e]	2006[f]
Current Account Balance	44.1	27.8	73.3	117.0	144.1	231.9	233.3
External financing, net:							
Private flows, net:	193.6	133.2	121.2	228.8	329.3	399.6	356.8
Equity investment, net	151.6	149.9	111.1	134.7	182.1	219.6	240.3
Direct investment, net	137.6	140.8	112.1	97.6	143.8	157.9	169.8
Portfolio investment, net	14.0	7.1	-0.9	37.1	38.3	61.7	70.5
Private creditors, net	42.0	-16.8	10.1	94.0	147.2	180.0	116.5
Commercial banks, net	0.0	-26.6	-5.7	26.9	63.9	88.7	51.6
Nonbanks, net	42.0	9.8	15.7	67.2	83.2	91.3	64.9
Official flows, net	-7.1	11.1	-3.2	-20.1	-24.8	-66.8	-25.9
IFIs	3.3	22.8	10.1	-6.4	-16.2	-40.2	-12.5
Bilateral creditors	-10.4	-11.6	-13.3	-13.8	-8.7	-26.6	-13.4
Resident lending/other, net*	-159.7	-84.6	-42.1	-57.7	-51.4	-148.5	-164.2
Reserves (- = increase)	-70.9	-85.7	-149.1	-267.9	-397.1	-416.2	-400.0

Notes: f = forecast
* = Including net lending, monetary gold, and errors and omissions

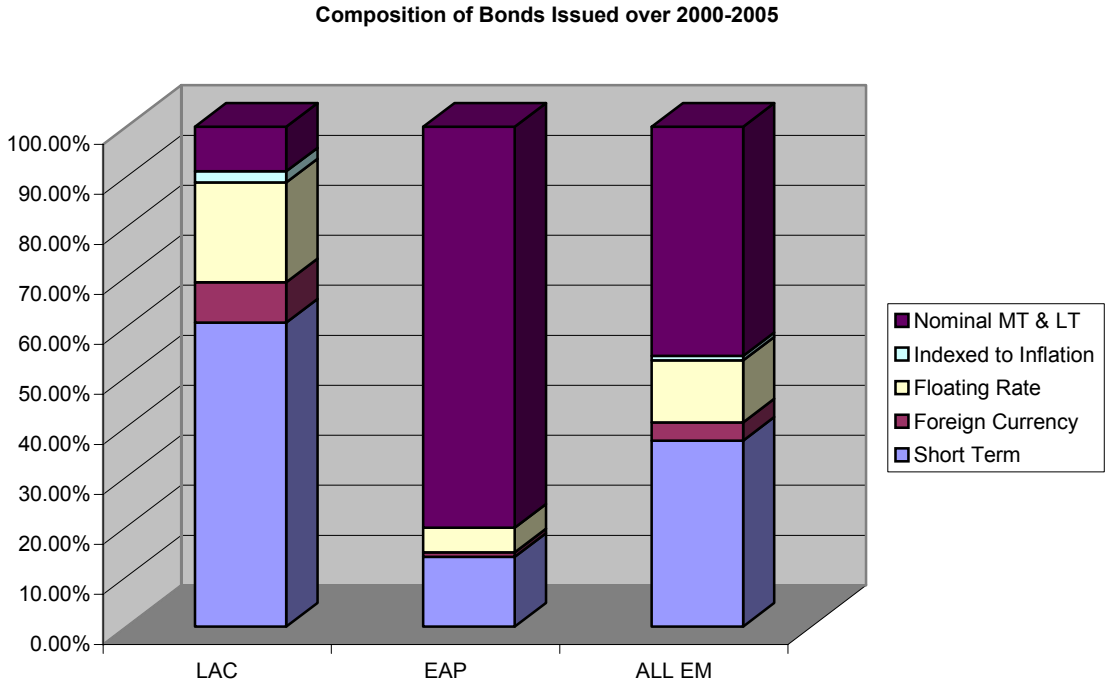
Sources: Institute of International Finance, Inc. (2003) and Institute of International Finance, Inc. (30 March 2006)

Table 3. Global Savings and Investment Trends
(as a percentage of GDP)

	Average 1990-99	Average 2000-02	2003	2004
World saving	22.9	23.4	23.9	24.9
Advanced economies	21.3	20.6	19.1	19.4
United States	16.3	16.2	13.5	13.7
Euro area	21.5	21.3	20.3	20.9
Japan	31.6	27.8	27.1	27.6
Emerging economies	25.3	27.2	29.8	31.5
Developing Asia	31.0	32.6	36.5	38.2
China	40.3	39.9	45.5	48.0
Latin America	18.3	17.8	20.0	21.0
Central and eastern Europe	20.6	18.8	18.6	19.1
World investment	24.0	23.2	23.5	24.6
Advanced economies	21.8	21.0	20.0	20.7
United States	18.7	19.4	18.4	19.7
Euro area	21.1	20.9	19.5	20.2
Japan	29.3	25.3	23.9	23.9
Emerging economies	27.2	26.1	27.9	29.2
Developing Asia	32.2	30.8	33.6	35.5
China	38.5	37.9	42.4	43.9
Latin America	20.9	19.8	19.0	19.8
Central and eastern Europe	23.3	23.1	23.2	23.8

Source: BIS Annual Report (2005).

Figure 1



Source: Authors' calculations based on EMWARE data