

# Private Capital Flows to Emerging-Market Economies

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- *After peaking at unprecedented levels (by recent historical standards) in 1996, net private capital flows to emerging-market economies (EMEs) fell to nearly zero in 2000. Since the Asian crisis in 1997, international banks have been aggressively cutting their exposure to EMEs, leading to a sharp reduction in international bank lending to these countries.*
- *In the 1970s and 1980s, private capital flows to EMEs were concentrated in Latin America. During the 1990s, the EMEs in Asia and Europe became important destinations for private financial flows.*
- *The 1990s saw a shift to non-debt-creating forms of capital inflows, and direct investment became the principal source of new capital available to EMEs. Importantly, direct investment has remained strong in the aftermath of the crises in EMEs in 1997 and 1998. In contrast, other types of capital flows, particularly interbank lending, have been flowing out of EMEs.*
- *High expected returns on investment underlay the rise in private capital flows to EMEs. In the 1990s, these flows were boosted by economic and financial liberalization, apparently sound macro-economic policies and, in some cases, explicit or implicit government guarantees.*
- *Notwithstanding the recent decline in capital flows to EMEs, the evidence of the last 30 years shows that EME capital markets have become increasingly deep and resilient: not only are private capital flows more geographically diversified than at any time in the past, but so are lenders and the instruments used to direct capital to EMEs.*

**T**he 1990s were turbulent years for many emerging-market economies (EMEs). They have become progressively integrated in the world economy and have seen rapid increases in economic activity, facilitated by a dramatic expansion in the inflow of private capital. Unfortunately, excessive reliance on international capital by countries ill-prepared to cope with large capital flows has often been problematic, leading to financial crises with large losses of output.

This article explores the evolving nature of capital flows to EMEs from the onset of the oil-price shocks in the early 1970s to the year 2000, emphasizing the past decade. It focuses on the changing nature of these flows in terms of magnitude, geographical distribution, type of instruments, and country of origin. The article also examines the role that the changing investor base has played in the evolution of these flows, and provides an overview of the factors underlying the growth of private capital flows in the 1990s.

Capital markets in EMEs have evolved substantially over the last 30 years and have become increasingly deep and resilient, notwithstanding the recent financial crises. In contrast to the 1970s, international banks now provide only a fraction of the financing available to EMEs. Borrowers have become increasingly diversified geographically, and there has been a shift to non-debt-creating investment vehicles.

## **Capital Flows to EMEs over the Last 30 Years**

In the aftermath of the oil-price shocks of the 1970s, many international commercial banks found themselves holding sizable deposits from oil producers (the so-called petro dollars). Some of these funds were recycled to the governments of EMEs through syndicated loan arrangements, typically at floating

## A Note on the Data Used in this Article

There is no ideal source for data on capital flows to EMES. This article uses a variety of complementary data from a number of international organizations. Data on private capital flows by destination and aggregate instrument type in Table 1 and Charts 1 and 2 come from the International Monetary Fund's (IMF) *World Economic Outlook* (WEO) database. More detailed data on the disaggregated components of gross portfolio flows (Table 2) are from various issues of the IMF publication, *International Capital Markets*. Data on the sectoral destination of private capital flows (Table 3) are found in the Bank

for International Settlements' (BIS) publication *International Banking and Financial Market Developments: International Debt Securities*. Data on the source of private capital flows come from other sources. Information on direct investment (Table 4) comes from the Organisation for Economic Co-operation and Development's (OECD) *International Direct Investment Statistics Yearbook*. Data on the sources of bank credit to EMES (Table 5) are available in the BIS publication *International Banking and Financial Market Developments: International Banking Statistics*.

interest rates. Given the sustained increase in commodity prices and the attendant improvement in terms of trade during this period, recipient countries had no difficulty servicing these loans. Consequently, net private capital flows increased almost without interruption in the 1970s, with the bulk of the flows directed to Latin America in the form of bank loans (Table 1 and Chart 1). Net private capital flows peaked at US\$49.8 billion in 1981.

In the early 1980s, however, commodity prices fell sharply, international interest rates rose to unprecedented levels, and economic activity in industrialized countries slumped. This pushed many EMES into financial difficulties. Starting with Mexico in August 1982, a number of Latin American nations announced moratoriums on their sovereign obligations. Financial flows to EMES dried up, with net private flows turning negative in 1984.

Official flows, largely from the International Monetary Fund (IMF) and development banks, took up the slack to a large extent. Throughout the 1980s, the IMF introduced a number of new lending facilities aimed at assisting highly indebted developing countries. In the context of IMF programs, official bilateral creditors rescheduled their claims under the aegis of the Paris Club. Official efforts to encourage commercial banks to provide new loans to EMES met with little success, although maturing loans were frequently rescheduled. Many countries fell into arrears on debt-service

payments. The failure to revive private capital flows to EMES in the 1980s has led many observers to qualify this period as the "lost decade," since the inability of EMES to access international capital markets impeded economic activity in a number of these countries.<sup>1</sup>

Eventually, the Brady Plan of 1989 allowed countries experiencing debt crises to restructure their debt by converting existing bank loans into collateralized bonds at a significant discount or at below-market interest rates.<sup>2</sup> The Brady Plan provided debt relief to the affected debtors. It also resulted in the creation of debt instruments that were more liquid and, as a result, more easily tradable. This was the catalyst for the development of the sovereign EME bond market.

Financial flows to EMES resumed quickly following the Brady exchanges in the early 1990s. A notable feature of this period was the surge in the flow of capital to EMES in Asia, notwithstanding the already high domestic savings rates (Table 1). Some economists link this phenomenon to the same factors responsible for the "Asian Miracle": high educational spending and sound macroeconomic policies. According to this school of thought, given the more educated workforce and a sound macroeconomic and institutional

1. For more information on the EME debt crisis, consult Powell (1990).

2. Brady bonds were collateralized with special zero-coupon U.S. Treasury bonds.

**Table 1**

**Net Private Capital Flows to EMEs**

US\$ billions

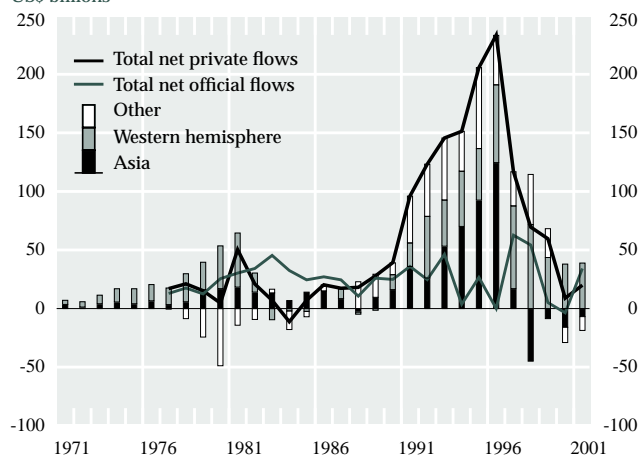
	Average				2000
	1971-79	1980-89	1990-99	1971-99	
<b>Emerging-market economies (total)</b>					
Net private capital flows	17.8	16.3	124.0	63.3	8.9
Net private direct investment	3.6	11.9	89.4	36.0	146.2
Net private portfolio investment	0.5	5.0	48.1	23.2	-4.3
Other net flows	11.7	-0.7	-13.5	-4.6	-133.0
<b>Asia</b>					
Net private capital flows	5.6	11.4	38.2	18.8	-16.0
Net private direct investment	1.3	4.7	39.5	15.6	46.8
Net private portfolio investment	0.1	1.1	11.9	4.5	3.7
Other net flows	4.2	5.6	-13.2	-1.3	-66.4
<b>Western hemisphere (Latin America and the Caribbean)</b>					
Net private capital flows	12.7	9.0	46.8	23.2	37.9
Net private direct investment	2.6	5.5	30.8	13.3	62.5
Net private portfolio investment	0.2	0.4	23.9	8.5	4.6
Other net flows	9.9	3.1	-7.9	1.4	-29.2
<b>Europe</b>					
Net private capital flows	n/a	n/a	12.3	n/a	2.2
Net private direct investment	n/a	n/a	10.4	n/a	22.5
Net private portfolio investment	n/a	n/a	6.8	n/a	4.3
Other net flows	n/a	n/a	-4.8	n/a	-24.7
<b>Other EMEs (Africa and the Middle East)</b>					
Net private capital flows	-0.6	-4.1	26.7	8.9	-15.2
Net private direct investment	-0.3	1.6	8.7	-3.3	14.4
Net private portfolio investment	0.2	3.5	5.5	3.4	-16.9
Other net flows	-2.4	-9.3	12.4	0.1	-12.7
<b>MEMO: Net official flows to EMEs</b>	<b>14.3</b>	<b>28.1</b>	<b>28.4</b>	<b>7.2</b>	<b>-3.6</b>

Source: IMF, WEO database. Totals may not sum because of missing observations in some years.

**Chart 1**

**Net Private Capital Flows to EME Borrowers by Geographic Area**

US\$ billions



Source: IMF, WEO database

environment, the expected return on an investment project was perceived as being higher than in other areas of the world, justifying the influx of capital. A second and complementary school of thought argues that much of the flow into Asia was the result of the collapse of the Japanese economy at the end of the 1980s. Japanese financial institutions sought better investment opportunities abroad and therefore invested heavily in the east Asian economies.<sup>3</sup> Other observers (e.g., Dooley 1999), remark that the inflows were buoyed by implicit or explicit guarantees that reduced the perceived risk of investing in emerging markets.

Regardless of the reason, it is generally acknowledged, with hindsight, that excessive capital flows were directed to Asia until 1996. This led to real estate bubbles in some countries, overvalued real exchange rates, and inflated financial-asset prices in most of the region, thereby sowing the seeds for the Asian crisis in 1997.

Capital flows also returned to other regions during the first half of the 1990s. In volume terms, financial flows to Latin America were several times higher than those registered in the 1980s, owing partly to market-friendly economic policies. In addition, flows to the transition economies of central and eastern Europe became more significant as these economies were liberalized. Investors were not only quick to capitalize on the privatization of state enterprises, but also to take advantage of the well-educated workforce in these countries and their proximity to western Europe. As a result, the transition economies were the recipients of important capital flows through the period.

After peaking at nearly US\$250 billion in 1996, capital flows to EMEs slowed sharply throughout the rest of the decade (Chart 1). This reflected the bursting of the Asian bubble in 1997 and subsequent crises in Russia (1998) and Brazil (1999). The sharp swing of Asian current account balances from deficits to sizable surpluses, caused in part by the Asian crisis, also reduced the demand for foreign capital. By 2000, net private capital flows to EMEs had fallen to less than US\$10 billion. As was the case during the mid-1980s, the decline in private sector flows to EMEs during the

3. See King (2001). According to this school of thought, lending by Japanese banks to Asian debtors was as profligate as that which led to the collapse of the Japanese real estate market in the late 1980s. Financial flows from Japan created asset-price bubbles in Thailand, and possibly in other countries, that eventually burst and sparked the Asian crisis.

late 1990s was partly offset by an increase in official lending by the IMF and by development banks. Such flows peaked at slightly over US\$60 billion in 1997.

### Composition of capital flows

Because of their experience during the 1980s, the emergence of an active market for the bonds of EMES as a result of the Brady Plan, and developments in Asia and in central and eastern Europe in the early 1990s, major international and commercial banks retreated from short-term, balance-of-payments financing. This led to a gradual shift in the nature of capital flows.

As Chart 2 and Table 1 demonstrate, bank lending (“other net flows”) has been highly volatile in recent years. While initially an important component of capital inflows in the early 1990s, bank lending was sharply curtailed after the Asian crisis in 1997–98. The direction of these flows has reversed since 1997, as international banks have decreased their claims on EMES, principally by reducing interbank exposures.

Portfolio investment (investments in bonds and equities) was the principal source of financing available to EMES in the first half of the 1990s (Chart 2). Table 2, which is based on gross portfolio flows, shows that most of these flows took the form of bonds. These data also indicate, however, that equity investments have risen rapidly, increasing nearly twentyfold over the 1990–99 period.

Chart 2

### Net Private Capital Flows to EME Borrowers by Type of Financing

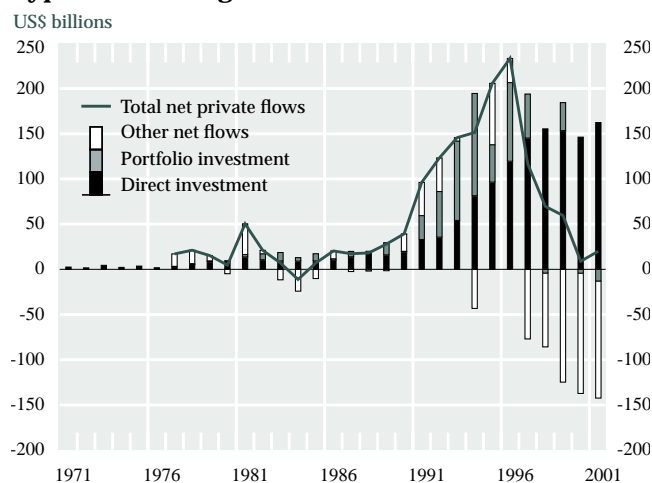


Table 2

### Gross Portfolio Flows: 1990 to 1999

US\$ billions

	1990	1995	1999
Bonds	8.5	59.2	87.0
Equities	1.2	10.0	23.2
Total	9.7	69.2	110.2
Bonds – as % of total	88.0	86.0	79.0
Equities – as % of total	12.0	14.0	21.0

Source: IMF, *International Capital Markets*, various issues

The decade also witnessed a substantial rise in direct investment flows. While accounting for only a small portion of total private capital flows in the early 1990s, direct investments are now the principal source of financing for EMES. One striking aspect of direct investments in EMES has been their resilience. They have actually increased, even through the Asian, Russian, and Brazilian crises.

*In conjunction with the greater significance of equity investment, the importance of direct investment implies that the large majority of net private financial flows to EMES are now non-debt-creating.*

In conjunction with the greater significance of equity investment, the importance of direct investment implies that the large majority of net private financial flows to EMES are now non-debt-creating.<sup>4</sup> This differentiates the 1990s from previous historical episodes. Furthermore, the long-term nature of these flows indicates that investors are more willing to commit long-term funds to EMES. This may be a reflection of some of the steps taken by these countries to make their economies more attractive to such commitments.

### Sectoral breakdown

In general, EME governments have been the largest borrowers on international debt markets. Statistics

4. Non-debt-creating flows have no fixed servicing obligations.

from the BIS reveal that the share of government and agency debt as a proportion of total international indebtedness has increased almost 10 percentage points since 1993 (Table 3).<sup>5</sup> This has been accompanied by a reduction in the share for financial institutions and a slightly increasing share for the non-financial corporate sector.

The aggregate data in Table 3 hide important regional differences in the sectoral allocation of flows. In European EMES, most of the portfolio flows have been directed to financing government activities, whereas in Asia and the Pacific, such flows account for less than a third of the total. In Latin America and the Caribbean, the government's share of portfolio flows has been increasing rapidly, from less than a quarter of the total in 1993 to more than half six years later. By 1999, in all three cases, the smallest portion of portfolio flows was going to financial institutions.

In dollar terms, the indebtedness of the financial sector has remained relatively constant since the Asian crisis. However, financial institutions in many EMES have benefited from substantial inflows of foreign direct investment (FDI). These are not captured

in the BIS statistics.<sup>6</sup> Furthermore, there is substantial foreign ownership of financial institutions in many EMES. Consequently, capital has been transferred from parent institutions to subsidiaries or branches without being captured in statistics on international indebtedness.

Interestingly, the history of recent financial crises can be traced through Table 3. The Asian crisis was rooted in the corporate sector (both financial and non-financial); Table 3 shows that this sector was the most indebted at the time of the crisis. In Latin America and in Russia, financial concerns in the 1990s centred on high government debt burdens. Again, Table 3 shows that this sector was the most indebted in these regions.

## Origin of private capital flows

### Foreign direct investment

Over the 1990–98 period, the United States was the largest provider of FDI to EMES (Table 4).<sup>7</sup> But most of the capital flowing out of the United States has been directed to Latin America, where commercial and historical ties are strong. In general, direct investment flows tend to follow commercial and/or historical links. Direct investment in emerging European markets is dominated by the European members of the G-7, while direct investment in Asia and the Pacific originates predominantly in Japan. Geographic proximity, cultural similarities, and availability of information are important determinants of the origins of private capital flows.

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European FDI in EMES rose by over 350 per cent in the period from 1990 to 1998. Some of this can be explained

**Table 3**  
**Sectoral Breakdown of International Indebtedness**

Per cent of total

	1993	1996	1999	1993–99 (average)
<b>Emerging-market economies (total)<sup>a</sup></b>				
Government and agencies	41	44	51	45
Financial institutions	26	23	14	21
Non-financial corporate	33	33	34	34
<b>Europe</b>				
Government and agencies	84	93	81	86
Financial institutions	15	6	8	10
Non-financial corporate	1	2	11	4
<b>Asia and the Pacific</b>				
Government and agencies	37	27	32	31
Financial institutions	23	29	20	25
Non-financial corporate	40	44	48	45
<b>Latin America/Caribbean</b>				
Government and agencies	23	46	54	41
Financial institutions	33	22	14	23
Non-financial corporate	44	32	32	36

Source: BIS, *International Banking and Financial Market Developments: International Debt Securities*. Based on year-end values. Includes outstanding international bonds, notes, and money market instruments.

a. Includes emerging markets in Europe, Asia and the Pacific, and Latin America. Africa and the Middle East are included in the total but are not reported separately. Totals may not sum to 100 because of rounding.

5. Data are available only from 1993 onwards.

6. The BIS statistics on international debt securities also exclude bank loans.

7. The data in Table 4 differ from those presented in Table 1 for a number of reasons. First, the data presented in Table 4 are on a gross basis, while Table 1 presents data on net capital flows. Second, the data in Table 4 include direct investment flows from only six countries, while the data in Table 1 include flows from all regions. Third, data in Table 4 are based on the balance-of-payments data of the donor country, while the data in Table 1 are based on balance-of-payments data for the recipient countries. There can be large and well-documented discrepancies between these data sources.

Table 4

**Sources of Foreign Direct Investment for EMEs**

US\$ billions

	1990	1994	1998 <sup>a</sup>	1990–98 (average)
Emerging-market economies (total) <sup>b</sup>	29.6	53.1	57.3	49.4
European members of the G-7	5.4	10.5	19.1	13.1
United States	13.3	26.9	24.9	22.7
Japan	11.0	15.7	13.3	13.6
Europe	0.3	1.6	6.2	2.5
European members of the G-7	0.3	0.8	5.3	1.8
United States	0.0	0.9	0.9	0.7
Japan	0.0	0.0	0.1	0.0
Asia and the Pacific	11.3	24.5	11.1	19.4
European members of the G-7	1.2	3.9	0.1	4.1
United States	2.9	10.8	4.7	6.7
Japan	7.2	9.8	6.4	8.7
Latin America/Caribbean	16.6	23.4	29.6	22.7
European members of the G-7	2.8	4.4	9.3	5.0
United States	10.1	13.8	13.9	13.4
Japan	3.6	5.2	6.3	4.3

Source: OECD data from the *International Direct Investment Statistics Yearbook*. Data are aggregated using yearly average exchange rates.

a. Most recent data

b. Includes emerging markets in Europe, Asia and the Pacific, and Latin America. Africa and the Middle East are included in the total but are not reported separately.

by the prospect of accession to the European Union for countries in eastern Europe and by the increased integration of these countries with western Europe. Many western European firms have set up manufacturing facilities in European emerging economies to take advantage of skilled labour forces and relatively low wages. Advanced European economies have also been aggressively investing in Latin America, particularly in the financial and rapidly developing telecommunications sectors (notably in Brazil).

**The banking sector**

The geographical origin of bank flows to EMEs is similar to that of FDI. In Table 5, the main creditors to EMEs are given as a proportion of total lending. Over the 1990–99 period, BIS data show that most bank lending to EMEs originated in Europe. In fact, lending to Europe, Africa, and the Middle East is dominated by European banks. This is not unexpected, given the commercial and colonial ties linking these regions. More surprising is the large share of lending by European banks to countries in Latin America and the Caribbean. European banks, particularly those in Spain, aggressively expanded their activities in Latin

America throughout the 1990s.<sup>8</sup> This can be seen from the steady increase in the share of lending by European banks to Latin America.

Over the 1990–99 period, lending to Asia was primarily from Japanese banks, although Table 5 shows a dramatic drop-off in Japanese lending following the Asian crisis. Proportionally, Japanese lending has fallen to less than half of its 1990 level in response to the Asian crisis and to domestic financial difficulties. Over the 1990s, the share of lending to EMEs by North American banks has remained constant at about 17 per cent of total international bank lending.

**Changing investor base**

In line with the changing nature of the financial instruments used, the EME investor base has also changed in recent years, with implications for future financial flows. During the 1970s and 1980s, syndicated bank loans were the primary source of financing available to EMEs. The development of bond and equity markets in EMEs brought a different class of investor to these countries. Broadly speaking, the

Table 5

**Sources of Bank Lending to EMEs**

Per cent of total bank lending

	1990	1995	1999	1990–99 (average)
Europe				
All emerging-market economies	42	49	59	50
Africa and Middle East	49	60	57	56
Asia and Pacific	23	33	48	34
Europe	65	79	80	76
Latin America/Caribbean	39	49	58	49
North America				
All emerging-market economies	18	17	17	17
Africa and Middle East	10	9	13	10
Asia and Pacific	13	11	11	12
Europe	5	6	7	6
Latin America/Caribbean	32	35	28	32
Japan				
All emerging-market economies	26	22	12	20
Africa and Middle East	11	7	6	9
Asia and Pacific	52	43	27	42
Europe	20	7	3	9
Latin America/Caribbean	19	7	4	10

Source: BIS, *International Banking and Financial Market Developments: International Banking Statistics*. Data available only as of 1990.

8. Spanish banks now generate the majority of their profits from Latin American operations.

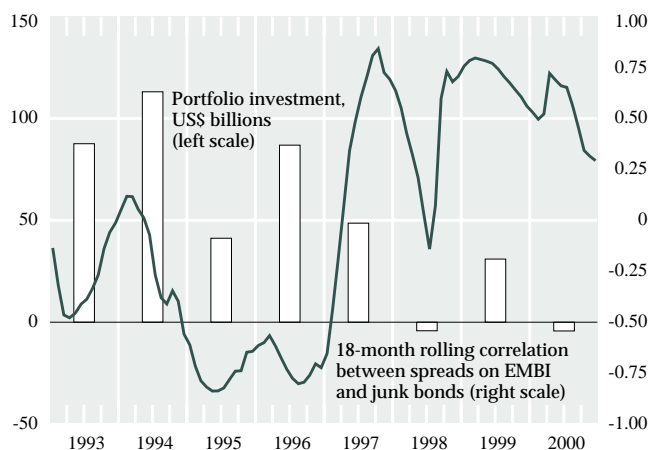
1990s saw the development of two generic investor types: crossover investors and dedicated investors. The first type of investor is generally unconstrained in its choice of investments. For a given risk level, crossover investors seek to maximize their returns, either through investments in industrialized countries or in emerging markets. Hence, financial flows of crossover investors tend to be more volatile, since funds are shifted from one asset to another with relatively little constraint. Many hedge funds, for instance, are crossover investors. Dedicated investors are those bound by self-imposed restrictions on either the asset class (bonds or equities, for instance) or various definitions of location. Dedicated investors may direct their investments to emerging markets in general, or may impose more precise constraints, such as Brazilian equities. Dedicated investors, such as those investing in emerging-market funds, will often track emerging-market equity or bond indexes, such as JP Morgan's Emerging Market Bond Index Plus, or various Morgan Stanley Capital International Indexes.<sup>9</sup>

Although dedicated investors can always liquidate their positions, crossover investors are often associated with the volatile nature of portfolio flows to EMEs, given their typically short-term investment perspective.<sup>10</sup> While good data are not available on the nature of the EME investor base, anecdotal evidence suggests that crossover investors are less important now than in the late 1990s.<sup>11</sup>

Both types of investors generally seek to diversify the risk of investing. For crossover investors, this may mean investing a portion of their portfolio in financial markets which display little co-movement. However, the influx of portfolio flows to EMEs has, at times, led to an apparent synchronization of movements in EME sovereign spreads with those of equity markets and representative high-risk investment indexes in

advanced economies. The result has been a narrowing of the returns to investors in these countries, such that the risk-reward payoff may not justify investment in EMEs to crossover investors; i.e., risk is less diversified when investing in EME assets. This is demonstrated in Chart 3, which plots net portfolio flows to EMEs versus the 18-month rolling correlation between the JP Morgan Emerging Market Bond Index and the spread between U.S. high-yield bonds (junk bonds) and U.S. Treasuries. As this correlation (i.e., risk diversification has decreased), portfolio investment in EMEs has declined.<sup>12</sup> Because of the increased linkages between financial markets in advanced economies and those in EMEs, as well as the reduced opportunity for diversification of risk, some observers believe that portfolio flows to EMEs might be permanently reduced.

**Chart 3**  
**Correlation between EMBI and Spreads on High-Risk U.S. Corporate Debt**



Source: IMF, WEO database, and JP Morgan

9. Dedicated investors, nevertheless, have considerable latitude regarding their investment decisions. Regional investors, such as those dedicated to central Europe, must decide which instrument and/or which country to invest in based on their analysis. Investors that follow emerging-market bond indexes must make judgments about sovereign risk and whether or not some countries should be over- or underweighted. Investors dedicated to a particular country must decide whether they should invest in cash, equities, or short- or long-term securities.

10. It is clear from Chart 2 that bank lending ("other net flows") has also been volatile through the years.

11. For instance, a recent study by JP Morgan finds that hedge funds now make up 10 per cent of emerging-market debt instruments. At the time of the Russian default, hedge funds accounted for 35 to 40 per cent of this market.

## What Determines Capital Flows to EMEs?

With the notable exception of certain Asian economies, EMEs typically have low domestic savings relative to investment opportunities that are profitable at rates of return required by foreign investors. These required rates of return are determined on the basis of

12. This is a demonstrative example, as the level of portfolio investment in EMEs has also been affected by the Asian crisis, among other developments.

the risk-adjusted return on alternative investment projects. Factors that might affect the availability and attractiveness of investment opportunities in EMEs for foreign investors include the domestic macro-economic environment, government restrictions on inward investment, and policies that might alter the perceived riskiness of investments. The supply of foreign capital depends on competing rates of return in creditor countries, and the regulatory environment in these countries.

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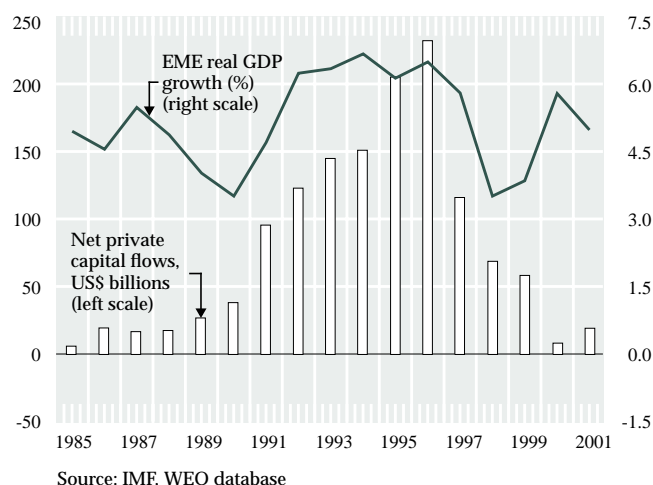
### Debtor-specific factors

Foreign investors may invest in EMEs to take advantage of local macroeconomic developments or to set up manufacturing facilities in low-cost production localities for export purposes. When GDP growth is high, the expected profitability of local investments is high, which attracts foreign capital. Firms also invest in EMEs to take advantage of low-cost skilled labour. In these cases, production is usually exported back to advanced economies. Chart 4 demonstrates a clear linkage between growth in EMEs and net private capital inflows.<sup>13</sup>

The easing of restrictions on foreign ownership and privatization have also contributed to foreign investment in EMEs. Economic liberalization during the late 1980s and through the 1990s led many EME govern-

13. The linkage between GDP growth in EMEs and net private capital flows could also be the result of reverse causation: that GDP growth in EMEs is higher because of an increase in net private capital flows. More likely, it is a combination of both factors: capital flows are higher when GDP growth is strong, but capital inflows are also required to fuel robust growth.

**Chart 4**  
**Net Private Capital Flows to EMEs**



ments, particularly those in eastern Europe, to dramatically reduce the extent of government involvement in the economy. Many nations underwent large-scale privatization programs, selling off state companies to domestic and foreign investors. This resulted not only in capital flows at the time of the purchase/investment, but often led to significant future flows as the privatized entities were recapitalized and expanded.

Changes in domestic financial and legal frameworks also lead to inflows of private capital by reducing transactions costs and/or the degree of risk of investing in EMEs. Some countries modified their legal systems to more fully enshrine property rights. Others chose to liberalize capital account transactions. This made it easier and less costly for foreigners to invest in, but also to withdraw their money from, EMEs.<sup>14</sup> A more recent change in EMEs has been the liberalization of domestic financial markets. This has allowed some EMEs to develop deeper financial markets, providing investors with more opportunity to risk-proof their investments (through hedging, for instance).

However, government policies can also lead to excessive or unwarranted inflows of capital. As noted earlier, the

14. Capital account liberalization has allowed private pension funds in some EMEs to invest in the assets of advanced economies, leading to a decline in net portfolio flows to EMEs. This trend is expected to continue in the foreseeable future.



provision of implicit or explicit guarantees—such as fixing exchange rates—to foreign investors will reduce the perceived risks of investments and thus lead to increased capital flows.<sup>15</sup> Sterilized intervention in the foreign exchange market will also contribute to larger capital flows, all other things being equal. Since the central bank offsets the expansionary impact of capital flows on the monetary base, domestic interest rates remain unchanged. Consequently, the relative attractiveness of EME assets is not reduced, and capital flows persist.

Investors face difficulties in collecting information about investment projects in EMEs. This has the effect of restraining such foreign investment by increasing transactions costs and risk. This leads to home bias, which is the observed phenomenon that investor portfolios are much less diversified geographically than theory suggests they should be. Until recently, this was a severe problem in many EMEs (which partly explains why bank loans were the principal form of credit available to EMEs prior to the Brady Plan).<sup>16</sup> Advances in information and communication technology in the 1990s have made it easier and less costly to evaluate and monitor investments in EMEs, thus allowing investors to more readily quantify risk. Although the relationship between advances in information and communication technology and increased capital flows in the 1990s may be difficult to document empirically, it stands to reason that these changes have increased capital flows.<sup>17</sup> Recent efforts by governments in EMEs to improve the timeliness, reliability, and extent of economic and financial information may pay off in enhanced foreign inflows in the future.

Lack of both information and transparency in government policies has occasionally made it difficult for investors to assess and price risk, particularly in times of turmoil. Delays in the availability—or outright unavailability—and misreporting of key economic data have also hindered the ability of investors to correctly assess the risk of specific investment projects.

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15. Though difficult to verify empirically, this is thought to have been a serious problem, particularly in some of the Asian EMEs.

16. While much improved from the 1970s and 1980s, informational problems remain substantial in most EMEs. This is one factor behind the recent focus on implementing international standards and codes in EMEs.

17. The main problem with establishing this empirical link relates to measuring and quantifying advances in information and communication technology.

## Creditor-specific factors

From a theoretical perspective, one of the most important and fundamental factors determining capital flows are risk-adjusted international interest rates—i.e., interest rates in industrialized countries. When choosing where to invest and what to invest in, rational investors compare the rates of return on a set of investment alternatives. If interest rates in international capital markets are low, then these investors will typically seek more rewarding alternatives (while accounting for the riskiness of the investment). Consequently, an inverse relationship between U.S. interest rates (which are often used as a proxy for international interest rates) and capital flows to EMEs has been identified, though this relationship is far from robust.<sup>18</sup>

Changes in the regulatory environment in many industrialized countries have given investors more opportunities to diversify their portfolios, and in so doing has allowed them to invest in countries where rates of return are higher. In Canada, for instance, the government increased the limits on holdings of foreign assets in registered retirement savings plans from 20 per cent in the 1990s to 30 per cent in 2001, allowing Canadians to hold more foreign assets in their retirement savings plans.

## Contagion

Throughout much of the 1990s, capital flows to individual EMEs have been strongly correlated. Some degree of co-movement is expected in EME asset prices as international financial markets have become increasingly integrated and EMEs have been, at times, hit by common shocks. Occasionally, however, this co-movement appears to have been exaggerated, given traditional economic and financial linkages.<sup>19</sup> Part of this may be the result of opaque government policies, such as so-called soft pegs. Contagion, as such excessive correlations are often described, was a defining feature of international capital markets in the 1990s and has led to serious economic dislocations in some cases.<sup>20</sup> As Chart 5 demonstrates, bond spreads

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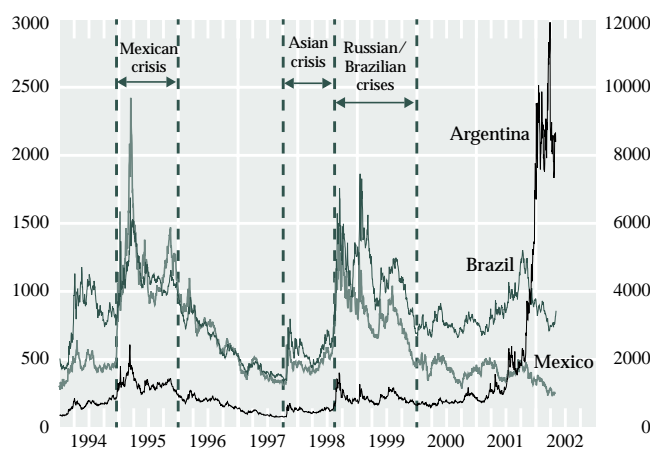
18. See for instance Calvo, Leiderman, and Reinhart (1993), Fernandez-Arias (1996), and Milesi-Ferretti and Razin (1998).

19. See Kruger, Osakwe, and Page (1998) for more information on the link between economic fundamentals and contagion.

20. There is some disagreement over the definition of the concept of contagion. There is, however, broad agreement that contagion means interdependence in financial market outcomes that is excessive given macroeconomic fundamentals. See Masson (1998).

**Chart 5**  
**Select Latin American Brady Spreads**

Basis points



Source: JP Morgan

in EMES became increasingly or excessively correlated during the financial crises identified in the highlighted sections of the chart.

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*Contagion . . . was a defining feature of international capital markets in the 1990s and has led to serious economic dislocations in some cases.*

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More recently, contagion seems to be less of a problem. Investors have become more discriminating, resulting in less co-movement in EME bond spreads.<sup>21</sup> Much of the increase in differentiation of risk by investors may be related to the generally sound macroeconomic policies followed by many EME countries since the Asian/Russian/Brazilian crises, and to measures that improved the international financial architecture, such as the wider adoption of flexible

21. The reader is referred to IMF (2001a, 20).

exchange rates and reforms that have enhanced the transparency of monetary and fiscal policies. The increased availability of timely and accurate information in conjunction with better macroeconomic policies should allow investors to further refine their risk analyses. Thus, contagion is likely to become a less-important determinant in the flow of private capital to EMES in the future.

## Conclusion

Capital flows to EMES have changed significantly over the last 30 years. Borrowers in EMES are now more geographically diversified and are more reliant on bond financing than on the bank loans of 30 years ago. Direct investment has become the dominant source of financing. Governments remain the principal borrowers, but the non-financial corporate sector is also an increasingly important recipient of private capital flows. These changes, in conjunction with recent improvements in data standards and transparency, as well as better financial regulation and supervision, have made capital markets in EMES deeper and more resilient than in the past. Private capital flows should continue to contribute to the future economic development of these countries.

Generally, private capital flows to EMES are a function of anticipated returns and risk. These, in turn, have been affected by economic and financial liberalization, growth prospects, macroeconomic policies, and advances in information and communication technology.

Reliant on international capital markets for a portion of their funding requirements, EMES need to continue to implement policies that allow them to maximize the benefits from such exposure. These policies should seek to encourage capital flows of a longer maturity, ensure a sound macroeconomic and financial environment, and allow international investors to make informed judgments about macroeconomic prospects through increased data dissemination and transparency.<sup>22</sup>

22. For a detailed review of the policy implications of the changing international financial architecture, see Powell (2001).

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