Appendix A
Data on Capital Flows: Sources and Comparisons

Definitional Issues

Tables 1.1 through 1.4 in the main text present various types of capital flows, private and official. Tables 1.1 and 1.4 highlight past and projected future private capital flows to emerging markets. Figures on both flows and stocks of international capital in these two tables come from various issues of the World Bank's *Global Development Finance* (*World Debt Tables* before 1997). Tables 1.2 and 1.3 summarize IMF data on net capital flows to emerging markets in the 1990s. The figures from IMF sources in tables 1.2 and 1.3 (referred to as *IMF tables*) are based upon standard balance of payments classification categories (as specified in the *Balance of Payment Manual*, 5th edition; IMF 1993).

In this appendix, we provide another set of net capital-flow data from a different source, the Institute of International Finance, *Capital Flows to Emerging Market Economies*. Tables A.1, A.2, and A.3 (referred to as *IIF tables*) lay out a summary for the decade of the 1990s, and regional tables for the second half of the 1990s. For the sake of handy comparison and more detailed data on private flows, the World Bank capital flow figures from *Global Development Finance* for the 1990s are provided in tables A.4, A.5, and A.6 (referred to as *WB tables*).

As might be expected, different sources give somewhat different pictures of capital flows and stocks in emerging markets. We have tried to conform the data in all three sets to the categories used by the IMF (as shown in tables 1.2 and 1.3). Forcing the other two sets into the IMF classification categories creates compatibility problems. However, the juxtaposition of the different data sets, classified in roughly the same way, reveals useful insights.

Table A.1 Net capital flows to emerging markets, 1990-2000
(Institute of International Finance estimates)

Flows	1990	1991	1992	1993	1994	1995
	(billions of dollars at current prices)					
Emerging Markets						
Total private capital inflows (net)	42.2	72.9	121.6	185.2	164.5	231.1
Bank loans and other debt (net)[d]	12.4	17.7	33.7	22.7	40.3	100.9
Portfolio investment (net)[d]	14.0	31.8	56.8	118.2	59.1	53.3
Foreign direct investment (net)[e]	13.8	23.4	31.1	44.3	65.2	76.8
Net official flows	39.3	37	36.8	27.1	28.8	37.9
Change in reserve assets	29.2	45.8	48.4	64.7	44.1	95.2
Current account balance	(15.7)	(21.1)	(50.8)	(80.1)	(72.3)	(88.2)
	(percent)					
As share of GDP of G-10[f]						
Total private capital inflows (net)	0.3	0.5	0.7	1.1	0.9	1.1
Bank loans and other debt (net)[d]	0.1	0.1	0.2	0.1	0.2	0.5
Portfolio investment (net)[d]	0.1	0.2	0.3	0.7	0.3	0.3
Foreign direct investment (net)[e]	0.1	0.1	0.2	0.3	0.3	0.4
Net official flows	0.3	0.2	0.2	0.2	0.2	0.2
As share of GDP of all emerging markets[g]						
Total private capital inflows (net)	0.9	1.5	2.5	3.7	3.1	4.3
Bank loans and other debt (net)[d]	0.3	0.4	0.7	0.5	0.8	1.9
Portfolio investment (net)[d]	0.3	0.7	1.2	2.4	1.1	1.0
Foreign direct investment (net)[e]	0.3	0.5	0.6	0.9	1.2	1.4
Net official flows	0.8	0.8	0.8	0.5	0.5	0.7

a. Estimated.
b. Absolute value of year-to-year changes.
c.The ratio of absolute deviation (note b) to the average flows for 1990-2000. The "own" figure relates the absolute deviation to average annual capital flows of the same type. The "total" figure relates the absolute deviation to the absolute deviation of total private capital flows. Negative signs are ignored in calculating relative deviations.
d.The IIF classification of debt securities (bonds, notes, etc.) depends on the holder. If a bank is a holder, they are classified under "bank loans and other debt (net);" if a nonbank financial institution is the holder, they are classified under "portfolio investment (net)." By contrast, the IMF (as in table 1.2) puts both equity and debt securities under "portfolio investment (net)" regardless of the holder. Accordingly, "bank loans and other debt (net)" in table 1.2 includes trade credits and loans; currency and deposits, and kindred assets and liabilities held by financial institutions.

					Flows, 1990-2000			Relative deviations (percent)[c]	
1996	1997	1998	1999[a]	2000[a]	Total	Average	Absolute deviation[b]	Own	Total
(billions of dollars at current prices)									
327.9	265.7	147.8	148.7	193.1	1,900.7	172.8	55.3	32	
116.4	35.6	(58.8)	(40.5)	(11.1)	269.3	24.5	34.9	>100	63
121.8	114.7	77.1	45.6	71.1	763.5	69.4	33.9	49	61
91.7	115.3	117.9	138.8	119.8	838.1	76.2	14.4	19	26
7.6	38.9	52.8	11.9	9.1	327.2	29.7	14.2		
84.5	42.3	42.2	52.0	74.5	622.9	56.6	19.3		
(96.2)	(80.6)	(10.1)	8.3	(15.7)	(522.5)	(47.5)	22.5		
(percent)									
1.6	1.3	0.7	0.7	0.9			0.9		
0.6	0.2	(0.3)	(0.2)	(0.1)			0.1		
0.6	0.6	0.4	0.2	0.3			0.4		
0.5	0.6	0.6	0.7	0.6			0.4		
0.0	0.2	0.3	0.1	0.0			0.2		
5.6	4.3	2.3	2.3	2.8			3.0		
2.0	0.6	(0.9)	(0.6)	(0.2)			0.5		
2.1	1.9	1.2	0.7	1.0			1.2		
1.6	1.9	1.9	2.1	1.8			1.3		
0.1	0.6	0.8	0.2	0.1			0.6		

e. The IIF "foreign direct investment (net)" figures exclude intercompany loans, contrary to the IMF data in table 1.2.
f. The G-10 countries (actually 11 countries) supply most, but not all, of private and capital flows. The G-10 countries are Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom, and the United States.
g. Emerging markets represent the rest of the world other than industrial countries. Industrial countries here include the G-10, Western Europe, Australia, and New Zealand.

Note: The discrepancy between the figures in table 1.2 and table A.1 stems from different classification methods used. Most important, the figures for "bank loans and other debt (net)" in table A.1 deal only with liabilities of residents of emerging economies, which equate to assets of industrial countries. Thus, when residents of emerging economies move their assets abroad, no entry appears in private capital flows. This largely explains the differences between tables 1.2 and A.1.

Source: Institute of International Finance data.

Table A.2 Net capital flows to emerging markets, by region, 1996-2000 (billions of dollars at current prices)

						Flows, 1996-2000			Relative deviations (percent)[c]	
Flows	**1996**	**1997**	**1998**	**1999[a]**	**2000[a]**	**Total**	**Average**	**Absolute deviation[b]**	**Own**	**Total**
Asia Pacific										
Total private capital inflows (net)	176.3	67.9	5.8	39.3	59.4	348.7	69.7	56.0	80	
Bank loans and other debt (net)	80.2	(13.3)	(58.5)	(30.7)	(14.2)	(36.5)	(7.3)	45.8	>100	82
Portfolio investment (net)	50.6	29.4	9.1	15.4	20.0	124.5	24.9	13.1	53	23
Foreign direct investment (net)	45.4	51.9	55.2	54.6	53.6	260.7	52.1	2.9	5	5
Net official flows	5.0	36.7	31.2	4.3	8.3	85.5	17.1	17.0		
Change in reserve assets	54.6	8.9	51.5	54.7	48.7	218.4	43.7	24.4		
Current account balance	(51.8)	(2.8)	95.2	64.7	51.2	156.5	31.3	47.8		
Five affected countries[d]										
Total private capital inflows (net)	108.1	(0.2)	(36.4)	(3.7)	7.8	75.6	15.1	47.2	>100	
Net official flows	(1.6)	29.9	26.9	1.4	6.3	62.9	12.6	16.2		
Other Asia										
Total private capital inflows (net)	68.2	68.1	42.2	43.0	51.6	273.1	54.6	8.9	16	
Net official flows	6.6	6.8	4.3	2.9	2.0	22.6	4.5	1.3		
Latin America										
Total private capital inflows (net)	97.3	107.7	97.5	68.8	89.6	460.9	92.2	17.5	19	
Bank loans and other debt (net)	15.9	18.1	5.8	(11.2)	6.4	35.0	7.0	12.3	>100	70
Portfolio investment (net)	45.7	40.8	42.8	13.5	35.7	178.5	35.7	14.6	41	83
Foreign direct investment (net)	35.8	48.8	48.9	66.5	47.6	247.6	49.5	12.4	25	71
Net official flows	(10.5)	(2.6)	15.7	5.5	(1.9)	6.2	1.2	11.0		
Change in reserve assets	25.4	12.0	(9.4)	(12.0)	18.0	34.0	6.8	16.9		
Current account balance	(36.3)	(62.3)	(83.0)	(51.4)	(56.8)	(289.8)	(58.0)	20.9		

Africa/Middle East										
Total private capital inflows (net)	3.8	15.7	9.4	8.7	11.6	49.2	9.8	5.5	55	
Bank loans and other debt (net)	1.8	5.4	1.7	(1.7)	0.2	7.4	1.5	3.2	>100	58
Portfolio investment (net)	1.6	2.1	2.2	2.3	2.7	10.9	2.2	0.3	13	5
Foreign direct investment (net)	0.7	3.8	1.4	2.9	2.9	11.7	2.3	1.8	75	32
Net official flows	1.8	(1.3)	(2.2)	(1.0)	(1.7)	(4.4)	(0.9)	1.5		
Change in reserve assets	1.6	10.5	(1.8)	0.1	0.0	10.4	2.1	5.8		
Current account balance	(1.2)	0.7	(6.4)	(3.5)	(3.2)	(13.6)	(2.7)	3.1		
Europe										
Total private capital inflows (net)	50.4	74.5	35.1	31.9	32.5	224.4	44.9	16.8	37	
Bank loans and other debt (net)	18.9	23.3	2.1	4.5	4.4	53.2	10.6	7.0	66	42
Portfolio investment (net)	21.8	40.3	20.6	12.6	12.2	107.5	21.5	11.7	54	69
Foreign direct investment (net)	9.8	10.9	12.3	14.7	15.9	63.6	12.7	1.5	12	9
Net official flows	11.2	6.1	8.1	3.0	4.4	32.8	6.6	3.4		
Change in reserve assets	2.8	10.8	1.9	9.3	**7.7**	32.5	6.5	6.5		
Current account balance	(6.8)	(16.2)	(16.0)	(1.6)	(6.9)	(47.5)	(9.5)	7.3		

a. Estimated.
b. Absolute value of year-to-year changes.
c. The ratio of absolute deviation (note b) to the average flows for 1996-2000. The "own" figure relates the absolute deviation to average annual capital flows of the same type. The "total" figure relates the absolute deviation to the absolute deviation of total private capital flows. Negative signs are ignored in calculating relative deviations.
d. Indonesia, Malaysia, South Korea, the Philippines, and Thailand.

Note: The discrepancy between the figures in table 1.2 and table A.1 stems from different classification methods used. Most important, the figures for "bank loans and other debt (net)" in table A.1 deal only with liabilities of residents of emerging economies, which equate to assets of industrial countries. Thus, when residents of emerging economies move their assets abroad, no entry appears in private capital flows. This largely explains the differences between tables 1.2 and A.1.

Source: Institute of International Finance, 24 January 2000, *Capital Flows to Emerging Market Economies*.

Table A.3 Net capital flows to emerging markets by region, 1996-2000 (percent of GDP)

	1996	1997	1998	1999	2000	Average percentage
Asia Pacific						
Total private capital inflows (net)	8.7	3.3	0.3	1.8	2.5	3.3
Bank loans and other debt (net)	3.9	(0.7)	(2.8)	(1.4)	(0.6)	(0.3)
Portfolio investment (net)	2.5	1.4	0.4	0.7	0.9	1.2
Foreign direct investment (net)	2.2	2.5	2.6	2.5	2.3	2.4
Net official flows	0.2	1.8	1.5	0.2	0.4	0.8
Five affected countries[a]						
Total private capital inflows (net)	10.0	(0.0)	(5.4)	(0.5)	1.1	1.0
Net official flows	(0.1)	3.0	4.0	0.2	0.8	1.6
Other Asia						
Total private capital inflows (net)	7.1	6.5	2.9	2.8	3.2	4.5
Net official flows	0.7	0.6	0.3	0.2	0.1	0.4
Latin America						
Total private capital inflows (net)	5.2	5.2	4.6	3.2	4.0	4.4
Bank loans and other debt (net)	0.8	0.9	0.3	(0.5)	0.3	0.3
Portfolio investment (net)	2.4	2.0	2.0	0.6	1.6	1.7
Foreign direct investment (net)	1.9	2.3	2.3	3.1	2.1	2.4
Net official flows	(0.6)	(0.1)	0.7	0.3	(0.1)	0.0
Africa/Middle East						
Total private capital inflows (net)	0.4	1.7	1.0	0.9	1.2	1.0
Bank loans and other debt (net)	0.2	0.6	0.2	(0.2)	0.0	0.2
Portfolio investment (net)	0.2	0.2	0.2	0.2	0.3	0.2
Foreign direct investment (net)	0.1	0.4	0.1	0.3	0.3	0.2
Net official flows	0.2	(0.1)	(0.2)	(0.1)	(0.2)	(0.1)
Europe						
Total private capital inflows (net)	4.5	6.5	3.0	2.7	2.6	3.9
Bank loans and other debt (net)	1.7	2.0	0.2	0.4	0.4	0.9
Portfolio investment (net)	1.9	3.5	1.8	1.1	1.0	1.9
Foreign direct investment (net)	0.9	1.0	1.0	1.2	1.3	1.1
Net official flows	1.0	0.5	0.7	0.3	0.4	0.6

a. Indonesia, Malaysia, South Korea, the Philippines, and Thailand.

Note: World GDP is expressed in dollars at market exchange rates (current prices).

Sources: Institute of International Finance, 24 January 2000, *Capital Flows to Emerging Market Economies;* IMF, *World Economic Outlook,* various issues; World Bank, *World Tables,* various issues.

There are three main differences between the data sources: first, how they treat net capital outflows by residents of the emerging market economies; second, the scope of the category, "bank loans and other debt (net);" and third, the treatment of interest payments (on "bank loans and other debt [net]") and profit remittances (on "foreign direct investment [net]").

Treatment of Resident Outflows

The WB tables (panel 1 in table A.4) do not reflect capital outflows, such as net lending or acquisition of assets abroad, by emerging-market residents. Neither do the IIF tables. Only in the IMF tables are net capital outflows by resi-dents of emerging markets offset against inflows from industrial countries.

The differing treatment of resident outflows between data sources creates a startling difference in the apparent magnitude of "total private capital inflows (net)" over the 1990s (total flows from 1990 to 1999). The decadal totals (10 years, eliminating 2000 estimates from the IMF tables and IIF tables for the sake of consistency) differ by between $400 billion and $760 billion (table 1.2 versus table A.1 versus table A.4, panel 1). The big differences are in "bank loans and other debt (net):" Differences in this category explain, on average, more than 80 percent of the gap. Residents of emerging markets place a considerable amount of money abroad, and how this money is recorded importantly affects the measure of "total private capital inflows (net)." Note that, when resident outflows are excluded, the average swings in bank loans into emerging markets decrease substantially from table 1.2. The absolute magnitude of swings more or less approaches the size of swings in portfolio flows. However, since the cumulative magnitude (1990-99) of portfolio flows is larger than the cumulative magnitude of bank loans, the relative volatility of bank loans remains much greater.

Scope of "Bank Loans and Other Debt (Net)"

In the IMF tables, "bank loans and other debt (net)" includes items such as loans, trade credits, currency and deposits, and kindred assets and liabilities—whether placed by banks or other financial institutions. "Portfolio investment (net)" includes both equity securities and debt securities (bonds and notes, money market instruments, and financial derivatives). "Bank loans and other debt (net)" in the IIF tables, however, only covers commercial bank lending. The approximately $200 billion difference between decade totals in the WB tables (panel 1) and the IIF tables in "bank loans and other debt (net)" stems from holdings by nonbank financial institutions of currency, trade credits, and other debt instruments. Below, we give additional comparisons based on the differing definitions of "bank loans and other debt (net)" in each table. The purpose of the additional comparisons is to highlight the role of banking activities.

Treatment of Interest Payments and Profit Remittances

In both the IMF tables and IIF tables, "interest payments" are not subtracted from "bank loans and other debt (net)." Likewise, "profit remittances" are

Table A.4 Net and net-net capital flows to emerging markets, by region, 1990-1999 (billions of dollars at current prices)

Flows	1990	1991	1992	1993	1994	1995
Panel 1						
Emerging Markets (net)						
Total private capital inflows (net)	59.2	82.6	135.9	202.4	222.8	270.7
Bank loans and other debt (net)[d]	31.1	29.9	64.7	48.7	60.6	98.9
Portfolio investment (net)[e]	3.9	18.3	25.1	87.7	73.3	66.9
Foreign direct investment (net)[f]	24.1	34.4	46.1	66.0	88.8	105.0
Net official flows	27.7	27.2	23.5	25.0	13.2	21.2
Panel 2						
Emerging Markets (net-net)						
Total private capital inflows(net-net)	(6.2)	15.9	73.3	137.0	147.1	176.6
Bank loans and other debt (net-net)[d]	(12.1)	(10.6)	30.8	15.8	24.0	52.6
Portfolio investment (net-net)[e]	(0.7)	10.5	17.2	78.1	59.2	45.5
Foreign direct investment (net-net)[f]	6.6	16.0	25.2	43.1	63.9	78.5
Net-net official flows	7.5	5.8	1.2	1.2	(12.4)	(9.3)

a. Estimated.
b. Average absolute value of year-to-year change.
c. The ratio of absolute deviation (note b) to the average flows for 1990-99. The “own” figure relates the absolute deviation to average annual capital flows of the same type. The “total” figure relates the absolute deviation to the absolute deviation of total private capital flows. Negative signs are ignored in calculating relative deviations.
d. In panel 1, interest payments on long-term and short-term debt are not subtracted from “bank loans and other debt (net).” Likewise, these payments are not subtracted in tables 1.2 and 1.3, nor in tables A.1 to A.3. In panel 2, by contrast, interest payments are subtracted. “Bank loans and other debt (net)” is the sum of short-term flows, commercial banks, and other private loans under net private flows in table A.6. “Bank loans and other debt (net-net)” is the sum of short-term flows, commercial banks, and other private loans under net-net private flows in table A.6.

				Flows, 1990–99			Relative deviation (percent)[c]	
1996	1997	1998	1999[a]	Total	Average	Absolute deviation[b]	Own	Total
325.1	324.3	220.1	227.5	2,071	207	42.0	20	
82.7	74.9	(6.1)	(17.1)	468	47	24.2	52	58
111.6	79.1	55.2	52.6	574	57	23.1	40	55
130.8	170.3	170.9	192.0	1,028	103	18.7	18	44
3.0	13.9	23.5	25.6	204	20	7.4		
221.9	210.6	96.2	87.3	1,160	116	40.3	35	
31.7	20.2	(63.8)	(81.4)	7	1	25.4	>100	63
89.3	52.0	24.3	18.3	394	39	25.1	64	62
100.9	138.5	135.7	150.4	759	76	16.6	22	41
(28.0)	(14.9)	(4.5)	(6.2)	(60)	(6)	7.5		

e. Net flows of debt securities (bonds and notes, etc.) are included under "portfolio investment (net)," This is the sum of (4)', (6)' in table A.6. "Portfolio investment (net)" is the sum of bonds and portfolio equity under net private flows in table A.6. "Portfolio investment (net-net)" is the sum of bonds and portfolio equity under net-net private flows in table A.6.
f. In panel 1, profit remittances on FDI are not subtracted from "foreign direct investment (net)." Likewise, profit remittances are not subtracted in tables 1.2 and 1.3, nor in tables A.1 to A.4. In panel 2, by contrast, profit remittances are subtracted.

Note: Capital outflows such as net lending or acquisition of assets abroad by residents of emerging markets are not reflected in either panel 1 or panel 2. This explains the substantial difference between capital flows (net) as shown in panel 1 of this table and the figures in table 1.3. See the text of appendix A.

Sources: World Bank, *Global Development Finance,* 1997,1998,1999, 2000.

Table A.5 Net and net-net capital flows to emerging markets, by region, 1990-99
(World Bank estimates, percent of GDP)

Flows	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Average percentage
Panel 1											
As share of GDP of the G-10											
Total private capital inflows (net)	0.6	0.7	0.9	1.3	1.2	1.4	1.5	1.7	1.3	1.2	1.2
Bank loans and other debt (net)[a]	0.4	0.4	0.5	0.4	0.4	0.6	0.4	0.5	0.3	0.0	0.4
Portfolio investment (net)[b]	0.0	0.1	0.1	0.5	0.4	0.3	0.5	0.4	0.2	0.3	0.3
Foreign direct investment (net)[c]	0.2	0.2	0.3	0.4	0.5	0.5	0.6	0.8	0.8	0.9	0.5
Net official flows	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1
As share of GDP of all emerging markets											
Total private capital inflows (net)	1.9	2.3	3.3	4.6	4.4	5.3	5.3	5.4	4.0	3.9	4.0
Bank loans and other debt (net)[a]	1.3	1.2	1.8	1.5	1.4	2.2	1.4	1.6	0.9	0.1	1.3
Portfolio investment (net)[b]	0.1	0.4	0.5	1.8	1.4	1.2	1.7	1.2	0.7	0.8	1.0
Foreign direct investment (net)[c]	0.5	0.7	1.0	1.3	1.7	2.0	2.1	2.6	2.4	2.9	1.7
Net official flows	0.9	0.9	0.7	0.6	0.4	0.4	0.0	0.2	0.3	0.4	0.5
Panel 2											
As share of GDP of the G-10											
Total private capital inflows (net-net)	0.0	0.1	0.4	0.8	0.7	0.8	0.9	1.0	0.5	0.3	0.6
Bank loans and other debt (net)[a]	(0.1)	(0.1)	0.1	0.1	(0.0)	0.1	(0.1)	(0.0)	(0.3)	(0.6)	(0.1)
Portfolio investment (net)[b]	0.0	0.1	0.1	0.5	0.4	0.3	0.5	0.4	0.2	0.3	0.3
Foreign direct investment (net)[c]	0.0	0.1	0.1	0.3	0.3	0.4	0.5	0.7	0.6	0.7	0.4
Net-net official flows	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1

As share of GDP of all emerging markets											
Total private capital inflows (net)	0.0	0.5	1.5	2.8	2.5	3.0	3.0	3.2	1.6	1.1	1.9
Bank loans and other debt (net)[a]	(0.2)	(0.3)	0.5	0.2	(0.1)	0.3	(0.4)	(0.2)	(1.0)	(2.0)	(0.3)
Portfolio investment (net)[b]	0.1	0.4	0.5	1.8	1.4	1.2	1.7	1.2	0.7	0.8	1.0
Foreign direct investment (net)[c]	0.2	0.3	0.5	0.9	1.2	1.5	1.6	2.1	1.9	2.3	1.3
Net official flows	0.9	0.9	0.7	0.6	0.4	0.4	0.0	0.2	0.3	0.4	0.5

G-10 = Group of Ten countries; see note f to table A.1.

a. In panel 1, interest payments on long-term and short-term debt are not subtracted from “bank loans and other debt (net).” Likewise, these payments are not subtracted in tables 1.2 and 1.3, nor in tables A.1 to A.3. In panel 2, by contrast, interest payments are subtracted.
b. Net flows of debt securities (bonds and notes, etc.) are included under “portfolio investment (net).”
c. In panel 1, profit remittances on FDI are not subtracted from “foreign direct investment (net).” Likewise, profit remittances are not subtracted in tables 1.2 and 1.3, nor in tables A.1 to A.4. In panel 2, by contrast, profit remittances are subtracted.

Note: Capital outflows such as net lending or acquisition of assets abroad by residents of emerging markets are *not* reflected in either panel 1 or panel 2. This explains the substantial difference between capital flows (net) as shown in panel 1 of this table and the figures in table 1.2. See the text of appendix A.

Sources: World Bank, *Global Development Finance*, 1997, 1998, 1999, 2000.

Table A.6 Decomposition of net and net-net capital flows to emerging markets, by region, 1990-99
(billions of dollars at current prices)

Flows	1990	1991	1992	1993	1994	1995
All emerging markets						
Net private flows	59.2	82.6	135.9	202.4	270.7	325.1
Short-term flows (net)	16.5	22.1	37.6	36.6	48.4	67.5
Long-term private capital flows (net)	15.7	18.6	38.1	48.8	50.4	62.2
Commercial banks[c]	3.2	4.8	16.3	3.5	8.8	30.4
Bonds[d]	1.2	10.8	11.1	36.6	38.2	30.8
Other private[e]	11.3	3.0	10.7	8.7	3.5	1.0
Portfolio equity (net)	2.8	7.6	14.1	51.0	35.2	36.1
Foreign direct investment (net)	24.1	34.4	46.1	66.0	88.8	105.0
Memorandum: official flows (net)	27.7	27.2	23.5	25.0	13.2	21.2
Net-net private flows	(6.2)	15.9	73.3	137.0	147.1	176.6
Short-term flows (net-net)	3.3	7.0	27.5	22.6	32.7	46.5
Long-term private capital flows (net-net)	(18.8)	(14.7)	6.5	20.3	15.3	15.6
Commercial banks[c]	(19.7)	(13.2)	(1.2)	(10.1)	(5.5)	12.2
Bonds[d]	(3.4)	3.0	3.2	27.1	24.1	9.5
Other private[e]	4.3	(4.4)	4.5	3.3	(3.3)	(6.1)
Portfolio equity (net)	2.8	7.6	14.1	51.0	35.2	36.1
Foreign direct investment (net-net)	6.6	16.0	25.2	43.1	63.9	78.5
Memorandum: official flows (net-net)	7.5	5.8	1.2	1.2	(12.4)	(9.3)
Asia						
Net private flows	31.5	39.9	59.6	86.2	122.1	144.5
Short-term flows (net)	10.6	11.2	11.3	7.3	30.3	41.4
Long-term capital flows (net)	7.6	13.0	19.8	15.8	26.2	27.5
Commercial banks[c]	6.4	6.6	11.6	2.9	3.4	10.7
Bonds[d]	(0.6)	4.6	2.6	9.0	18.8	15.7
Other private[e]	1.8	1.8	5.6	3.9	4.0	1.1
Portfolio equity (net)	1.7	1.1	5.5	22.9	18.8	20.6
Foreign direct investment (net)	11.6	14.7	23.0	40.2	46.7	55.0
Memorandum: official flows (net)	10.8	11.9	11.3	11.6	8.6	9.2
Net-net private flows	11.4	19.1	39.0	64.8	97.4	111.9
Short-term flows (net-net)	5.8	6.1	7.3	3.2	25.3	32.7
Long-term capital flows (net-net)	(2.4)	2.6	9.9	5.7	14.6	13.0
Commercial banks[c]	(0.3)	(0.4)	5.5	(3.3)	(3.1)	2.7
Bonds[d]	(1.9)	3.4	1.2	7.3	16.4	12.0
Other private[e]	(0.2)	(0.4)	3.2	1.8	1.3	(1.7)
Portfolio equity (net)	1.7	1.1	5.5	22.9	18.8	20.6
Foreign direct investment (net-net)	6.4	9.3	16.3	33.0	38.7	45.6
Memorandum: official flows (net-net)	4.2	4.8	3.7	3.1	(0.7)	(0.6)

				Flows, 1990-99			Relative deviation (percent)[b]	
1996	**1997**	**1998**	**1999**	**Total**	**Average**	**Absolute deviation[a]**	**Own**	**Total**
325.1	324.3	220.1	227.5	2,071	207	42.0	20	
42.9	20.4	(47.6)	(11.2)	233	23	22.7	97	54
102.1	103.4	81.2	19.2	540	54	19.1	35	45
37.5	51.6	44.6	(11.4)	189	19	15.2	80	36
62.4	48.9	39.7	25.0	305	30	12.6	41	30
2.2	3.0	(3.1)	5.5	46	5	4.7	>100	11
49.2	30.2	15.6	27.6	269	27	13.7	51	33
130.8	170.3	170.9	192.0	1,028	103	18.7	18	44
3.0	13.9	23.5	25.6	204	20	7.4		
221.9	210.6	96.2	87.3	1,160	116	40.3	35	
19.7	(3.2)	(69.4)	(30.3)	56	6	23.1	>100	57
52.2	45.1	14.3	(60.4)	75	8	21.5	>100	53
16.4	26.3	14.0	(52.3)	(33)	(3)	15.8	>100	39
40.2	21.8	8.8	(9.3)	125	12	14.2	>100	35
(4.4)	(2.9)	(8.4)	1.2	(16)	(2)	5.2	>100	13
49.2	30.2	15.6	27.6	269	27	13.7	51	34
100.9	138.5	135.7	150.4	759	76	16.6	22	41
(28.0)	(14.9)	(4.5)	(6.2)	(60)	(6)	7.5		
163.3	115.7	35.8	67.2	866	87	32.3	37	
33.6	(3.4)	(39.1)	(11.7)	92	9	16.3	>100	50
43.0	38.4	(2.3)	(6.2)	183	18	10.3	56	32
12.5	8.0	(8.1)	(14.5)	40	4	5.6	>100	17
26.1	26.1	6.1	3.9	112	11	6.6	58	20
4.4	4.3	(0.3)	4.4	31	3	2.4	77	7
23.3	11.7	9.4	20.1	135	13	6.2	46	19
63.4	69.0	67.8	65.0	456	46	6.8	15	21
5.8	17.2	15.9	17.6	120	12	2.6		
126.6	74.6	(6.0)	22.8	562	56	30.7	55	
23.4	(13.9)	(47.4)	(17.1)	25	3	16.2	>100	53
27.3	19.2	(23.5)	(30.5)	36	4	11.0	>100	36
4.4	(1.6)	(19.4)	(28.9)	(45)	(4)	6.2	>100	20
21.1	19.4	(1.5)	(4.2)	73	7	6.8	93	22
1.7	1.5	(2.7)	2.6	7	1	2.4	>100	8
23.3	11.7	9.4	20.1	135	13	6.2	46	20
52.7	57.6	55.6	50.4	366	37	6.5	18	21
(3.2)	8.3	6.3	6.9	33	3	2.5		

(*table continues next page*)

Table A.6 Decomposition of net and net-net capital flows to emerging markets, by region, 1990-99
(billions of dollars at current prices) (*continued*)

Flows	1990	1991	1992	1993	1994	1995
Latin America						
Net private flows	21.5	31.4	44.4	80.2	72.9	78.7
Short-term flows (net)	9.1	8.2	13.4	20.1	12.5	15.9
Long-term capital flows (net)	3.3	4.1	8.1	19.2	18.9	25.3
Commercial banks[c]	2.8	1.3	4.3	0.3	6.2	15.0
Bonds[d]	0.1	4.1	4.7	20.5	15.0	11.5
Other private[e]	0.4	(1.3)	(0.9)	(1.6)	(2.3)	(1.2)
Portfolio equity (net)	0.9	6.2	8.2	27.2	13.2	7.6
Foreign direct investment (net)	8.2	12.8	14.6	13.7	28.4	29.8
Memorandum: official flows (net)	6.9	8.1	9.3	2.7	(1.4)	9.3
Net-net private flows	(0.9)	8.6	22.6	56.1	43.5	41.3
Short-term flows (net-net)	6.6	3.9	10.2	15.4	6.6	9.1
Long-term capital flows (net-net)	(9.3)	(7.2)	(2.9)	8.8	5.2	5.3
Commercial banks[c]	(6.2)	(3.3)	(0.6)	(3.2)	2.6	9.8
Bonds[d]	(2.3)	(1.4)	(0.4)	14.4	5.7	(2.4)
Other private[e]	(0.9)	(2.5)	(1.9)	(2.4)	(3.0)	(2.1)
Portfolio equity (net)	0.9	6.2	8.2	27.2	13.2	7.6
Foreign direct investment (net-net)	1.8	5.6	7.1	4.8	18.5	19.2
Memorandum: official flows (net-net)	0.8	(3.6)	(6.2)	(5.3)	(9.7)	(0.3)

a. Average absolute value of year-to-year change.
b. The ratio of absolute deviation (note a) to the average flows for 1990-99. The "own" figure relates the absolute deviation to average annual capital flows of the same type. The "total" figure relates the absolute deviation to the absolute deviation of total private capital flows. Negative signs are ignored in calculating relative deviations.
c. Commercial banks are loans from private banks and other private financial institutions.
d. Bonds include publicly issued or privately placed bonds.
e. Other private includes credits from manufacturers, exporters, and other suppliers of goods, and bank credits covered by the guarantee of an export credit agency.

				Flows, 1990-99			Relative deviation (percent)[b]	
1996	**1997**	**1998**	**1999**	**Total**	**Average**	**Absolute deviation**[a]	**Own**	**Total**
105.4	128.1	112.3	97.0	772	77	16.9	22	
0.9	12.4	(14.5)	(0.9)	77	8	10.1	>100	60
47.2	41.1	55.8	4.9	228	23	12.9	57	76
15.9	31.5	40.4	(4.2)	113	11	10.4	91	61
32.4	10.6	17.6	9.6	126	13	9.7	77	57
(1.1)	(1.0)	(2.2)	(0.5)	(12)	(1)	0.9	75	5
13.9	9.9	1.7	3.6	93	9	7.3	79	43
43.4	64.7	69.3	89.4	374	37	9.2	25	54
(8.3)	(5.1)	6.9	6.3	35	3	6.3		
63.6	81.0	59.0	36.2	412	41	17.3	42	
(6.8)	5.3	(21.8)	(7.4)	21	2	10.6	>100	61
25.4	14.6	25.3	(31.1)	34	3	13.3	>100	77
8.5	22.2	28.9	(19.7)	39	4	10.2	>100	59
18.8	(6.1)	(0.9)	(10.4)	15	1	10.5	>100	61
(1.8)	(1.5)	(2.8)	(1.0)	(20)	(2)	0.9	45	5
13.9	9.9	1.7	3.6	93	9	7.3	79	43
31.0	51.2	53.8	71.2	264	26	8.2	31	48
(17.4)	(13.0)	(0.8)	(3.6)	(59)	(6)	6.5		

Note: Repayments of loan principal are subtracted to obtain net loans. Interest payments on long-term and short-term debt are subtracted from new loans to calculate the net-net amounts. Likewise, profit remittances on foreign direct investment are subtracted from new foreign direct investment flows to calculate the net-net foreign direct investment flows. Capital outflows such as net lending or acquisition of assets abroad by residents of emerging markets are not reflected in either net or net-net flows.

Sources: World Bank, *Global Development Finance*, 1997,1998,1999, 2000.

not subtracted from "foreign direct investment (net)." In the WB tables (panel 2), however, these payments and remittances are subtracted. The cumulative size of "interest payments" and "profit remittances" can best be seen by comparing the two panels of the WB tables. In panel 2, this distinction is made by labeling each category (net-net) as compared to (net) figures (the net figures only subtract repayments of principal, not income remittances). For "bank loans and other debt," the difference between (net) and (net-net) figures add up to a decadal magnitude of $460 billion. The decadal gap between "foreign direct investment (net)" and "foreign direct investment (net-net)" totals about $270 billion.

Additional Comparisons

Table A.6 presents the net capital-flows data with detailed decomposition, isolating commercial bank loans from portfolio bonds and equities. "Commercial banks" under "long-term private capital flows (net)" in table A.6 include only loans from private banks and other private financial institutions. However, "bank loans and other debt (net)" in table A.1 (IIF table) covers commercial bank lending, which refers to "transactions that relate to liabilities of residents of that economy, whether they refer to transactions in debt securities or to components of other investment, such as trade credit or other loans."

In short, bank activities other than loan making are included in table A.1, but not in table A.6. Thus, comparing the figures in tables A.1 and A.6 gives a very rough idea of how much volatility increases when additional activities of banks (trading in debt securities and other investment) are taken into account. Average absolute deviations ($34.9 billion) as a percentage of cumulative flows ($269.3 billion) are about 13 percent in table A.1 (including bank trading activities), but only 8 percent of cumulative flows ($15.2 billion vs. $18.9 billion) in table A.6. This comparison suggests that trading activity adds to the volatility of total bank portfolios. On top of these core definitional differences, the estimates in each table reflect different data sources and different coverage of financial institutions.

A Deeper Look at Bank Activity

Table A.7 summarizes gross flows of many forms of capital to emerging markets during the 1980s and the 1990s. It is useful to start by explaining the concept of "gross flows," Gross flows are recorded without subtracting flows in the opposite direction. The main analysis of this book is based on net flows, drawn from balance of payments data (table 1.2). By comparison, gross flow data (from IMF and BIS sources), while less complete in coverage, provide more information about the means by which capital is raised.

Table A.7 records the gross amount of all new capital issues that occur in the context of formal international offerings or facilities. However, the data in table A.7 excludes bank lending that is not syndicated (e.g., interbank lending) and loans that do not involve international public offerings (Mussa and Richards 1999). The figures also exclude purchases in secondary markets. By definition, the data do not reflect repayments of prior loans.

Looking at the gross numbers in table A.7, portfolio flows (bonds and equities) have now overtaken syndicated loan issues. The trend becomes apparent when compared with the respective flows in the 1980s (table A.7). On average, the share of syndicated loans declined from more than 80 percent of gross financing in the 1980s to less than 50 percent in the 1990s. Moreover, there is a distinct shift toward financing for private borrowers in emerging markets rather than financing for official borrowers (sovereigns and public corporations) (table A.7).

Despite their loss of market share, banks are still major players in the emerging markets. In terms of the size of external debt stock, banks hold about 30 percent of the external debt stock of the emerging-market economies overall, and a somewhat larger share in Latin America than in Asia (table A.8).[1]

Syndicated Loans

As noted above, the gross loan figures in table A.7 refer to syndicated loans, defined as loans issued by at least three financial institutions working together. The syndicated loan data, moreover, are limited to loans with a maturity of at least 1 year and for an amount more than $1 million. Announced syndicated loans to emerging markets are shown in table A.9. In principle, the figures for "All emerging markets" in table A.9 should be identical with the figures recorded under "Syndicated loans" in table A.7. In comparison with the size of cumulative flows during the part-decade period 1992-99, the volatility of syndicated loans is fairly small. The average absolute deviation of syndicated loans was less than 10 percent of the part-decade total of flows in each region. By contrast, the average absolute deviation of net bank loans and deposits in emerging markets was 32 percent of the cumulative *negative* flows (table 1.2).

The text of the book emphasizes volatility in net bank lending. However, one important segment of international banking, the syndicated loan market, appears to be insulated from extreme volatility. The implication is that other forms of international bank lending—short-term interbank loans, trade credits, and corporate loans—together with deposits

1. Note, however, the dramatic shift toward nonbank financing in Latin America. In 1982, before the Latin American debt crisis, banks held almost 70 percent of total external debt in Latin America. Now, the share is 33 percent.

Table A.7 Gross private market financing to emerging markets, by region, financing type, and borrower type, 1980-99
(billions of dollars)

Flows	Average, 1980-82	Average, 1983-89	1990	1991	1992	1993	1994	1995
All emerging markets	18.2	23.0	38.1	61.6	64.5	117.4	133.4	160.3
Asia	6.0	12.3	19.5	21.2	25.2	56.3	83.5	88.1
Latin America	8.8	3.1	4.7	14.3	21.5	41.2	25.8	36.3
Africa	0.9	1.8	1.2	4.7	3.4	1.4	3.6	9.4
Middle East	0.7	1.6	1.1	12.0	6.1	4.3	8.9	9.2
Europe	1.8	4.3	11.6	9.4	8.3	14.2	11.7	17.4
Bonds	2.2	6.1	8.7	14.4	25.7	65.0	53.8	59.2
Equities	n.a.	0.3	1.2	5.6	7.2	11.9	17.9	10.0
Syndicated loans	16.0	16.6	28.2	41.6	31.5	40.5	61.6	91.1
Sovereign	3.6	5.0	2.1	15.6	9.6	18.2	16.6	25.6
Public	11.5	13.1	23.2	25.6	25.7	35.1	39.0	49.0
Private	3.1	4.9	12.8	20.5	29.2	64.1	77.8	85.7

n.a. = not available

a. Average absolute value of year-to-year deviations.
b. The ratio of absolute deviation (note a) to the average flows for 1990-99. The "own" figure relates the absolute deviation to average annual capital flows of the same type. The "total" figure relates the absolute deviation to the absolute deviation of total private capital flows. Negative signs are ignored in calculating relative deviations.
Sources: IMF, *International Capital Markets,* September 2000; Mussa and Richards (1999).

1996	1997	1998	1999	Flows, 1990-99 Total	Flows, 1990-99 Average	Absolute deviation[a]	Relative deviation (percent)[b] Own	Relative deviation (percent)[b] Total
226.1	297.2	157.4	178.5	1,435	143	46.7	33	
123.4	130.6	41.1	66.6	656	66	25.1	38	54
64.9	96.2	66.6	65.4	437	44	17.0	39	36
5.7	15.2	3.9	4.7	53	5	4.5	84	10
10.3	16.3	9.6	15.5	93	9	4.8	51	10
21.9	38.9	36.2	26.3	196	20	5.7	29	12
105.3	133.2	80.2	87.0	633	63	23.0	36	49
17.8	26.2	9.4	23.2	130	13	7.9	61	17
103.0	137.8	67.7	68.4	671	67	22.3	33	48
41.8	47.4	50.6	51.9	279	28	7.2	26	15
54.7	74.5	33.5	25.6	386	39	11.1	29	24
129.5	175.3	73.3	101.0	769	77	32.5	42	70

Table A.8 External debt stock in emerging markets, by maturity and type of creditor (billions of dollars)

Debt stock	1982	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Average stock, 1990-99	Absolute deviation[a]	Relative deviations (percent)[b]	
														Own	Total
All emerging markets	839	1,228	1,245	1,324	1,461	1,564	1,689	1,749	1,813	1,922	1,942	1,594	79	5	
By maturity															
Short-term	187	185	168	207	243	250	321	367	397	418	391	295	33	11	41
Long-term	652	1,043	1077	1,117	1,218	1,313	1,368	1,383	1,416	1504	1551	1,299	56	4	71
By type of creditor															
Official	249	579	600	630	672	730	770	777	752	745	756	701	27	4	33
Banks	434	387	403	400	417	413	450	467	508	513	509	447	16	4	20
Other private	156	262	242	294	372	421	468	506	553	664	678	446	51	11	64
Asia		187	333	367	408	455	510	561	596	640	655	663	519	37	7
By maturity															
Short-term	40	46	47	57	67	74	96	114	110	98	92	80	10	12	27
Long-term	147	287	320	350	389	436	466	482	529	557	572	439	32	7	86
By type of creditor															
Official	75	172	184	203	224	251	256	267	270	247	257	233	15	6	40
Banks	82	101	101	112	122	142	165	190	190	173	167	146	13	9	34
Other private	31	60	82	93	110	116	140	140	180	236	239	139	20	14	55
Latin America		331	437	459	480	539	565	613	640	669	738	735	587	34	6
By maturity															
Short-term	63	73	63	80	86	101	139	159	182	208	203	129	18	14	53
Long-term	268	365	396	401	452	465	475	481	487	529	532	458	19	4	55
By type of creditor															
Official	41	144	160	161	161	168	193	184	169	178	179	170	9	5	27
Banks	224	198	200	184	186	165	172	178	216	229	229	196	12	6	35
Other private	66	95	99	135	191	232	249	279	283	331	327	222	27	12	79

a. Average absolute value of year-to-year deviations. Figures for 1982 are excluded in calculating average deviations.
b. The ratio of absolute deviation (note a) to the average stock for 1990-99. The “own” figure relates the absolute deviation to the average capital stock of the same type. The “total” figure relates the absolute deviation to the absolute deviation of total stock in the region. Negative signs are ignored in calculating relative deviations.

Source: IMF, *World Economic Outlook*, various issues.

Table A.9 Announced international syndicated credit facilities, by borrower region, 1992-99 (billions of dollars)

									Flows, 1992-99			**Relative deviations** (percent)[b]	
Region or country	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**Total**	**Average**	**Absolute deviation**[a]	**Own**	**Total**
All emerging markets	27.6	22.7	42.5	70.6	84.0	129.2	71.6	54.9	503	63	26.5	42	
Asia Pacific	13.5	16.8	33.6	41.2	49.6	54.4	20.2	16.6	246	31	11.2	18	42
Five affected countries	6.9	12.1	18.5	28.6	34.7	33.0	8.3	9.0	151	19	7.8	12	30
Indonesia	1.5	2.6	4.8	10.5	13.3	11.4	0.0	0.5	45	6	3.7	6	14
South Korea	2.0	2.6	3.1	5.9	11.2	10.2	0.4	2.5	38	5	3.2	5	12
Malaysia	1.2	2.4	4.1	4.1	3.0	3.5	2.9	3.8	25	3	0.9	1	3
Philippines	0.3	0.6	0.0	1.4	0.6	2.6	2.3	1.7	10	1	0.9	1	3
Thailand	1.9	3.9	6.5	6.7	6.6	5.3	2.7	0.5	34	4	1.6	2	6
Latin America	3.5	2.4	3.3	8.4	11.5	31.0	28.4	16.8	105	13	6.3	10	24
Africa and Middle East	7.5	0.7	3.0	12.1	10.2	19.6	11.1	11.0	75	9	5.4	9	21
Europe	2.9	2.8	2.4	8.8	12.9	24.0	12.0	10.4	76	10	5.1	8	19

a. Average absolute value of year-to-year deviations.
b. The ratio of absolute deviation (note a) to the average flows for 1992-99. The “own” figure relates the absolute deviation to average annual capital flows of the same type. The “total” figure relates the absolute deviation to the absolute deviation of total private capital flows. Negative signs are ignored in calculating relative deviations.

Source: Bank for International Settlements, *Quarterly International Banking and Financial Market Development,* June 2000.

by residents of emerging markets, are the main sources of volatility (BIS 1997).

A statement in the new IMF publication, *Emerging Market Financing*, sheds more light on the syndicated loan segment of the international banking market (IMF 2000a, 21):

> We expect the syndicated loan market to continue to be relatively resilient to fluctuations in global capital market . . . This is readily apparent from the behavior of the share of syndicated bank loans in total financing of emerging markets on international capital markets . . . The share peaked around each of the emerging markets crises—the Tequila, Asian, and Russian crises . . . representing at around half, the largest component of all fundraising by emerging markets on international capital markets.

Interbank Loans

Tables A.10 and A.11 give a detailed picture of banking activity, taken from BIS sources. Table A.10 draws on consolidated banking statistics from the asset side of bank balance sheets. The data mainly cover financial claims reported by domestic bank head offices, including exposures of their foreign affiliates. The data are collected on a consolidated worldwide basis for each bank, with inter-office positions being netted out (BIS 2000a). Thus the reporting system for consolidated positions does not conform to the methodology for reporting balance of payments data (table 1.2), or external debt data (tables A.4, A.5, and A.6).

Table A.11 draws on another set of banking data from the BIS, organized by the location of banking offices. In this dataset, both domestic and foreign-owned banking offices in 18 countries and 6 offshore centers record their positions, including positions vis-à-vis their own affiliates. Data reported under this system are consistent with the principles of reporting balance of payments data (table 1.2) and external debt statistics (Tables A.4, A.5, and A.6) (BIS 2000a).

In Table A.10, annual changes in the assets of industrial-country banks in the emerging markets sum up to $340 billion during the period 1990-99. These figures reflect net flows (after repayments), but do not reflect deposits by residents of emerging markets. About a third of the flows in table A.10 take the form of interbank loans. Interbank loans account for over half of overall volatility in bank lending to emerging markets. When the average absolute deviation of each flow is contrasted with its decadal total, the swings in interbank loans are about 25 percent of the cumulative flows to emerging markets, whereas the swings in loans to the nonbank private sector are about 7 percent. Volatility in short-term lending accounted for two-thirds of overall volatility in bank lending to emerging markets (table A.10).

In the latter part of the 1990s, when the Asian, Russian, and Brazilian crises took place, interbank loans dominated the run from emerging markets.

Table A.10 Change in assets for BIS consolidated bank lending, by maturity and type, 1990-99
(billions of dollars)

											Flows, 1990-99			Relative deviations (percent)[b]	
Change	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total	Average	Absolute deviation[a]	Own	Total
Total flows															
All emerging markets	(14)	32	16	21	64	84	103	142	(59)	(52)	338	34	44	>100	
Asia Pacific	19	21	11	23	52	65	61	54	(85)	(34)	188	19	30	>100	68
Five affected countries	13	14	8	15	35	54	51	13	(73)	(27)	104	10	25	>100	57
Indonesia	6	3	1	2	4	10	11	5	(14)	(5)	23	2	5	>100	12
Malaysia	(1)	1	1	5	0	3	5	6	(7)	(3)	10	1	3	>100	8
Philippines	(0)	(1)	(2)	(1)	1	1	5	7	(4)	0	7	1	3	>100	6
South Korea	5	6	4	3	15	21	22	(2)	(30)	(4)	42	4	11	>100	25
Thailand	3	6	3	7	14	19	7	(3)	(19)	(15)	22	2	7	>100	16
Latin America	(20)	(3)	6	7	12	7	30	39	9	(13)	73	7	14	>100	31
Africa and Middle East	1	(2)	1	(3)	5	1	(5)	11	13	4	25	3	6	>100	14
Europe	(14)	16	(2)	(6)	(5)	12	17	37	4	(8)	51	5	16	>100	36

(*table continues next page*)

Table A.10 Change in assets for BIS consolidated bank lending, by maturity and type, 1990-99 (billions of dollars) (*continued*)

Change	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Flows, 1990-99 Total	Flows, 1990-99 Average	Absolute deviation[a]	Relative deviations (percent)[b] Own	Relative deviations (percent)[b] Total
Short-term lending (up to 1 year)															
All emerging markets	11	12	39	28	38	59	57	57	(79)	(38)	183	18	28	>100	
Asia Pacific	17	16	15	16	32	43	31	3	(72)	(19)	82	8	22	>100	79
Five affected countries	13	10	10	11	23	35	29	(8)	(63)	(12)	49	5	20	>100	72
Indonesia	5	2	2	2	2	6	7	1	(11)	(5)	11	1	4	>100	14
Malaysia	0	1	1	3	(1)	1	3	3	(5)	(2)	6	1	3	>100	9
Philippines	0	0	(0)	(1)	1	1	4	4	(3)	(1)	5	0	2	>100	6
South Korea	5	4	4	2	11	14	13	(9)	(29)	5	20	2	10	>100	37
Thailand	3	4	3	6	10	13	2	(7)	(15)	(10)	8	1	5	>100	18
Latin America	3	6	11	9	11	5	19	24	(6)	(15)	69	7	8	>100	30
Africa and Middle East	1	(7)	6	(2)	1	1	(6)	11	5	1	12	1	7	>100	26
Europe	(10)	(2)	7	5	(7)	9	12	18	(7)	(6)	20	2	9	>100	33
Interbank loans															
All emerging markets	(4)	31	21	14	17	44	34	47	(57)	(53)	94	9	23	>100	
Asia Pacific	11	12	8	12	23	33	26	27	(52)	(27)	74	7	16	>100	68
Five affected countries	10	7	7	7	15	27	24	(0)	(42)	(13)	42	4	13	>100	58
Indonesia	3	1	1	1	0	1	3	1	(7)	(1)	3	0	2	>100	10
Malaysia	0	1	1	2	(1)	1	2	3	(4)	(2)	3	0	2	>100	9
Philippines	0	0	(1)	(0)	0	1	3	4	(3)	(1)	4	0	2	>100	7

South Korea	5	5	4	2	11	13	16	(8)	(19)	(1)	28	3	8	>100	34
Thailand	2	1	1	2	5	12	0	(1)	(10)	(8)	5	0	4	>100	17
Latin America	(5)	3	7	4	(0)	1	7	14	(11)	(10)	8	1	7	>100	29
Africa and Middle East	0	0	4	0	3	2	(3)	(0)	1	(3)	5	1	3	>100	12
Europe	(10)	16	2	(2)	(9)	7	4	6	6	(14)	7	1	10	>100	44
Loans to nonbank private sector															
All emerging markets	16	12	8	22	46	50	72	100	(3)	(10)	313	31	23	74	
Asia Pacific	6	8	7	12	28	36	37	24	(32)	(16)	109	11	13	>100	56
Five affected countries	5	8	5	8	19	27	28	11	(30)	(16)	64	6	11	>100	48
Indonesia	3	2	1	1	4	9	8	3	(7)	(5)	19	2	3	>100	13
Malaysia	(1)	0	1	2	3	3	4	2	(3)	(2)	9	1	1	>100	6
Philippines	(0)	(0)	(0)	0	1	1	2	3	(0)	0	6	1	1	>100	4
South Korea	0	0	0	1	3	7	7	6	(12)	(2)	11	1	4	>100	16
Thailand	2	5	2	4	9	8	7	(3)	(9)	(7)	18	2	4	>100	15
Latin America	2	6	6	11	12	9	24	33	16	3	122	12	7	61	32
Africa and Middle East	2	(3)	(4)	(2)	2	1	1	12	10	5	24	2	3	>100	15
Europe	4	1	0	1	4	4	10	32	3	(1)	58	6	8	>100	33

BIS = Bank for International Settlements.

a. Average absolute value of year-to-year deviations.

b. The ratio of absolute deviation (note a) to the average flows for 1990-99. The “own” figure relates the absolute deviation to average annual capital flows of the same type. The “total” figure relates the absolute deviation to the absolute deviation of total private capital flows. Negative signs are ignored in calculating relative deviations.

Note: Consolidated banking statistics from the BIS cover the cross-border claims on, and liabilites to, individual countries, or groups of countries, of all the offices worldwide of banks with head offices in reporting countries. The figures exclude positions between different offices of the same bank. The figures for different maturies and type of lending presented here are overlapping and not comprehensive. E.g., most of interbank lending consists of short-term lending. The sum of interbank lending and loans to the non-bank private sector do not add up to total net flows.

Source: Bank for International Settlements, *Quarterly Review International Banking and Financial Market Developments,* table 9A, various issues.

Table A.11 Change in assets for BIS reporting banks in emerging markets, by type and sector[a], 1996-99 (billions of dollars)

	1996	1997	1998	1999	Average flows	Absolute deviation[a]	Relative deviations (percent)[b] Own	Total
Panel A Changes in total assets, all sectors								
All emerging markets	126	91	(79)	(60)	19	74	>100	
Asia and Pacific	81	6	(97)	(54)	(16)	73	>100	98
Five affected countries	58	(10)	(83)	(32)	(17)	64	>100	87
Indonesia	9	7	(14)	(6)	(1)	11	>100	14
Malaysia	7	4	(7)	(4)	0	6	>100	7
Philippines	6	3	(1)	0	2	3	>100	3
South Korea	27	(4)	(33)	(5)	(4)	29	>100	39
Thailand	10	(20)	(29)	(33)	(14)	17	>100	22
Latin America	29	31	(8)	(29)	9	16	>100	22
Africa and Middle East	(0)	22	22	2	11	14	>100	19
Europe	17	32	4	8	15	16	>100	21
Panel B Changes in external loans, all sectors								
All emerging markets	110	73	(72)	(67)	11	63	>100	
Asia Pacific	71	4	(91)	(57)	(18)	65	>100	>100
Five affected countries	50	(10)	(79)	(28)	(17)	60	>100	96
Indonesia	9	7	(13)	(6)	(1)	10	>100	15
Malaysia	6	3	(5)	(4)	0	4	>100	7
Philippines	5	3	(2)	1	2	3	>100	6
South Korea	21	(5)	(31)	(2)	(4)	27	>100	43
Thailand	8	(19)	(28)	(31)	(14)	16	>100	25
Latin America	26	30	(6)	(28)	8	16	>100	26
Africa and Middle East	(1)	16	20	1	9	14	>100	22
Europe	14	20	4	5	11	7	70	12
Panel C (Panel A–Panel B), all sectors								
All emerging markets	16	18	(6)	7	9	14	>100	
Asia Pacific	9	2	(6)	3	2	8	>100	58
Five affected countries	8	0	(4)	(4)	0	4	>100	32
Indonesia	1	(0)	(1)	0	(0)	1	>100	7
Malaysia	1	0	(1)	(0)	(0)	1	>100	9
Philippines	0	1	1	(1)	0	1	>100	7
South Korea	5	1	(2)	(3)	0	3	>100	20
Thailand	1	(1)	(1)	(0)	(0)	1	>100	7
Latin America	3	1	(2)	(1)	0	2	>100	17
Africa and Middle East	0	6	1	1	2	4	>100	26
Europe	3	12	(0)	3	5	8	>100	62

BIS = Bank for International Settlements.

a. Average absolute value of year-to-year deviations.

b. The ratio of absolute deviation (note a) to the average flows for 1996-99. The "own" figure relates the absolute deviation to average annual capital flows of the same type. The "total" figure relates the absolute deviation to the absolute deviation of total private capital flows. Negative signs are ignored in calculating relative deviations.

Note: The locational banking statistics from the BIS are provided by reporting banks in 18 countries and 6 offshore centers. The figures report on-balance sheet assets and liabilities vis-à-vis nonresidents in any currency plus similar assets and liabilities vis-à-vis residents

	1996	1997	1998	1999	Absolute flows	Absolute deviation[a]	Relative deviations (percent)[b] Own	Total
Changes in total assets, interbank								
All emerging markets	77	24	(65)	(51)	(4)	52	>100	
Asia and Pacific	48	(3)	(60)	(43)	(14)	41	>100	80
Five affected countries	41	(15)	(69)	(26)	(17)	51	>100	98
Indonesia	3	3	(10)	(3)	(2)	7	>100	13
Malaysia	6	4	(6)	(3)	0	5	>100	9
Philippines	4	1	(1)	(1)	1	2	>100	4
South Korea	20	(5)	(25)	(3)	(3)	23	>100	44
Thailand	8	(17)	(27)	(16)	(13)	15	>100	30
Latin America	19	15	(13)	(8)	3	12	>100	23
Africa and Middle East	1	5	7	(1)	3	5	>100	10
Europe	10	7	0	1	5	3	>100	7
Changes in external loans, interbank								
All emerging markets	69	21	(64)	(58)	(8)	46	>100	
Asia and Pacific	42	(2)	(56)	(48)	(16)	36	>100	77
Five affected countries	36	(14)	(67)	(26)	(18)	48	>100	>100
Indonesia	2	3	(10)	(4)	(2)	6	>100	14
Malaysia	6	3	(5)	(3)	0	4	>100	9
Philippines	4	0	(2)	(0)	1	3	>100	6
South Korea	16	(4)	(24)	(2)	(3)	20	>100	44
Thailand	7	(17)	(27)	(16)	(13)	15	>100	32
Latin America	18	13	(12)	(9)	3	11	>100	24
Africa and Middle East	1	4	7	(1)	3	4	>100	10
Europe	8	5	(2)	(0)	2	4	167	9
(Panel A–Panel B), interbank								
All emerging markets	9	4	(1)	6	4	6	>100	
Asia and Pacific	6	(1)	(3)	5	1	6	>100	>100
Five affected countries	5	(1)	(2)	(0)	0	3	>100	47
Indonesia	0	(0)	(0)	1	0	1	>100	10
Malaysia	(0)	0	(0)	1	0	1	>100	14
Philippines	0	1	1	(1)	0	1	>100	17
South Korea	4	(1)	(1)	(1)	0	2	>100	38
Thailand	0	(1)	(1)	0	(0)	1	>100	11
Latin America	1	2	(1)	0	0	2	>100	29
Africa and Middle East	(0)	2	1	(0)	0	1	>100	20
Europe	2	2	3	1	2	1	24	9

denominated in foreign currencies. The locational banking statistics report data on the positions of all banking offices within the reporting area. Such offices report exclusively on their own (unconsolidated) business, which includes international transactions with any of their own affiliates located either inside or outside the reporting area. The basic organizing principle is the residence of the banking office, regardless of the nationality of ownership. This conforms with the methodology used for balance of payments data (IMF, table 1.2) and external debt data (World Bank, tables A.4, A.5, A.6).

Sources: Bank for International Settlements, *Guide to International Banking Statistics,* July 2000; BIS Quarterly Review, *International Banking and Financial Market Development,* August 2000.

Panel A in table A.11 (the locational statistics from BIS sources) shows clearly the regions and countries where bank outflows were largest. It also shows that changes in interbank assets dominated the overall changes in bank assets. Panel B in table A.11 shows that interbank loans (a *negative* total of $71 billions in 1996-99 in the case of the five affected Asian countries) accounted for more than 100 percent of the total *negative* loan flows to all sectors.

Panel C in table A.11 provides rough estimates of the size of international banking activity in emerging markets, other than loan activity. In other words, panel C provides a rough estimate of securities trades.[2] On the basis of these rough estimates, banks devote more than 80 percent of their asset activities to loan making in emerging markets. Bank trading in securities, however, added to the volatility of overall banking operations (table A.11).[3]

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2. The estimates are made by subtracting changes in bank loans in emerging markets (panel B) from changes in their total assets (panel A).

3. Two factors help explain the high share of volatility accounted for by interbank loans in table A.11. First, the period under consideration in table A.11 was a period of high volatility. Second, the greater volatility portrayed in table A.11 (compared with table A.10) illustrates the difference in methodology. Interbank loans show more volatility when transactions between foreign affiliates and their head offices are recorded (the convention in table A.11).