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August 17, 1994

To: Members of the Executive Board

From: The Secretary

Subject: Private Market Financing for Developing Countries

The attached paper provides background material to the report on financing for developing countries and their debt situation (document to be issued), which is tentatively scheduled for discussion on Friday, September 9, 1994.

As in previous years, it is planned that this background paper will form the basis for publication in the Fund's World Economic and Financial Surveys Series. The revised text will reflect Executive Directors' comments and delete certain sensitive material.

Mr. Dunaway (ext. 37343), Mr. Ishii (ext. 37355) or, Mr. A. Santos (ext. 38783) is available to answer technical or factual questions relating to this paper prior to the Board discussion.

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INTERNATIONAL MONETARY FUND

Private Market Financing for Developing Countries

Prepared by the Policy Development and Review Department

(In consultation with other departments)

Approved by Jack Boorman

August 15, 1994

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I. Introduction

This paper provides information on private market financing for developing countries, as background for the Executive Board paper on financing for developing countries and their debt situation. 1/ It covers developments during 1993 and the first half of 1994. Chapter II discusses the further progress achieved in resolving the commercial bank debt problems of developing countries, providing a description of recent bank packages and activity in debt-equity conversions, along with an analysis of movements in the secondary market prices of bank claims and Brady bonds. Chapter III reviews developments in private market financing for developing countries and factors influencing these flows, including an assessment of factors affecting the pricing of developing countries' securities in international capital markets. Chapter IV describes recent institutional reforms and change in regulatory practices affecting financial flows to developing countries. Chapter V examines the recent surge in foreign direct investment flows to developing countries, looking at issues relating to the sustainability of these flows and their behavior in periods of financial distress. Chapter VI reviews the historical experience of developing countries with bond financing in the early 1900s and in the 1970s and early 1980s.

II. Developments in Commercial Bank Debt Restructuring

1. Overview

Progress has been made by a number of the heavily indebted middle-income developing countries in regularizing their relations with commercial bank creditors. To many observers, the recent conclusion of the Brazilian debt package is seen as marking the end of the debt crisis saga that started over a decade ago when Mexico in August 1982 announced its inability to service its external obligations to commercial creditors. Along with Brazil, Bulgaria, Jordan, and Zambia have completed debt and debt service reduction (DDSR) operations or a comprehensive buyback over the past year

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1/ Additional information on private flows to developing countries is provided in International Capital Markets--Developments Prospects, and Key Policy Issues (EBS/94/113, May 31, 1994 and SM/94/141, June 8, 1994) and in Private Market Financing for Developing Countries (SM/93/185, August 18, 1993). The term "developing country" as used in this paper refers to all low- and middle-income countries according to the World Economic Outlook classification. The term "country" as used here does not in all cases refer to a territorial entity that is a state as understood by international law and practice. It covers some territorial entities that are not states, but for which data are maintained and provided internationally on a separate and independent basis.

(Table 1). The Dominican Republic is expected to close its bank debt deal by end-September 1994. Bank creditors for Poland have submitted their allocations to the options in the country's debt package, and the deal is expected to be completed by November 1994. Ecuador and its banks have agreed on terms, with expectations that the deal will be closed in early 1995.

All in all, 17 countries have concluded operations restructuring their original commercial bank debt estimated at US$155 billion, obtaining roughly US$67 billion of debt reduction (in present value terms) at a cost of almost US$23 billion (Table 2). By the time that pending bank debt operations for the three additional countries are completed, US$170 billion of original commercial bank claims would have been restructured; debt reduction achieved will amount to an estimated US$76 billion at a cost of about US$25 billion. At that time, roughly 75 percent of the commercial bank debt owed by heavily indebted developing countries at end-1989 will have been restructured in the context of debt and debt service reduction operations. 1/

Allocations to the different options in bank packages have varied depending, among other things, on explicit limits imposed by debtor countries and on interest rate developments following the issuance of term sheets and creditors' views regarding a country's prospects that may make one option more attractive than others, as well as prospective capital gains (Table 3). However, as a whole, each package has been cost-effective in that the cost per unit of debt reduction obtained has been broadly in line with the price prevailing in the secondary market at the time of the agreement in principle (Table 4).

Following the trend of previous years, debt conversion activity was less buoyant in 1993. This reflected in part a shift in emphasis in the privatization program in Argentina (which accounted for about half of the activity in 1992) from reducing foreign commercial bank debt to reducing foreign currency denominated domestic debt instruments. Moreover, the decline in debt conversions reflected the rise in secondary market prices of many countries' debt and the reduced scale of privatizations, as countries have substantially completed their schemes.

2. Recent bank packages

While Argentina's DDSR package closed on April 7, 1993, about 6 percent of the eligible principal (amounting to US$19.4 billion) and 100 percent of past due interest (PDI) (US$8.6 billion) were exchanged at a later date due to reconciliation problems. All collaterals and guarantees (US$3.1 billion),

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1/ A further 10 percent of the end-1989 stock of commercial bank debt has been extinguished through debt conversions and other mechanisms. Of the remaining end-1989 debt that has not been restructured, Peru and Panama account for more than 20 percent and four low-income countries (Cameroon, Congo, Côte d'Ivoire, and Nicaragua) account for another 17 percent.

Table 1. Chronology of Bank Debt Restructurings and Bank Financial Packages, 1984-July 1994

Agreement classified by month of signature 1/

1984
Brazil: January 2/
Chile: January, June, and November
Sierra Leone: January
Guyana: January, July (deferment)
Nicaragua: February (deferment)
Peru: February 3/
Senegal: February
Niger: March
Mexico: April (new financing only)
Sudan: April (modification of 1981 agreement)
Yugoslavia: May
Jamaica: June
Zaire: June (deferment)
Poland: July 2/
Madagascar: October
Liberia: December 3/
Zambia: December 3/

1985
Côte d'Ivoire: March 2/
Mexico: March, August
Costa Rica: May 2/
Senegal: May
Philippines: May 2/
Zaire: May (deferment)
Guyana: July (deferment)
Argentina: August 2/
Jamaica: September
Panama: October 2/
Sudan: October (modification of 1981 agreement)
Chile: November 2/
Colombia: December 5/
Ecuador: December 2/
Madagascar: December (modification of 1984 agreement)
Yugoslavia: December

1986
Dominican Republic: February
Morocco: February
Venezuela: February
South Africa: March (standstill)
Niger: April
Zaire: May (deferment)
Brazil: July
Uruguay: July
Poland: September 2/
Romania: September
Congo: October 2/ 3/
Côte d'Ivoire: December

1987
South Africa: March
Mexico: March (public sector debt) 2/,
August (private sector debt)
Jamaica: May
Mozambique: May 3/
Zaire: May (deferment)
Chile: June
Honduras: June 3/
Madagascar: June (modification of 1985 agreement)
Argentina: August 2/
Morocco: September
Romania: September (modification of 1986 agreement)
Bolivia: November (amendment to 1981 agreement)
Nigeria: November 2/ 3/
Venezuela: November
Gabon: December 4/
Philippines: December

1988
Gambia, The: February
Chile: August (amendment to 1987 agreement) 3/
Uruguay: March (modification of 1986 agreement)
Côte d'Ivoire: April 2/ 3/
Guinea: April
Togo: May
Poland: July
Yugoslavia: September 2/
Malawi: October
Brazil: November 2/

1989
Nigeria: April
Zaire: June (deferment)
Poland: June (deferment) 3/
South Africa: October
Honduras: August 3/
Niger: October 3/
Trinidad and Tobago: December

1990
Philippines: February 2/
Mexico: February 2/
Madagascar: April
Bulgaria: April (standstill) 3/
Costa Rica: May
Jamaica: June
Morocco: September
Senegal: September
Chile: December (amendments to previous agreements)
Venezuela: December 2/

1991
Colombia: April 5/
Niger: April
Uruguay: January 2/
Brazil: May 6/
U.S.S.R., former: December (deferment)
Mozambique: December
Nigeria: December

1992
Algeria: March
Gabon: May
Philippines: July 2/
Guyana: November
Argentina: December

1993
Uganda: February
Bolivia: March
Russia: July 3/
South Africa: September
Brazil: November 2/
Jordan: December

1994
Dominican Republic: February
Poland: March 7/ 2/
Ecuador: May 7/
Gabon: May
Bulgaria: June
Zambia: July

Under negotiation

Albania	Nicaragua	Russia
Congo	Panama	Sao Tome and Principe
Côte d'Ivoire	Peru	Sierra Leone
		Tanzania

Sources: Restructuring agreements.

Note: "Restructuring" covers rescheduling and also certain refinancing operations.

1/ Agreement either signed or reached in principle (if signature has not yet taken place); not all signed agreements have become effective.
2/ The restructuring agreement includes new financing.
3/ Agreed in principle or tentative agreement with banks' Steering Committees.
4/ A separate club deal for new financing was arranged at the same time.
5/ Refinancing agreement.
6/ Preliminary agreement on interest arrears.
7/ Agreement on term sheet.

Table 2. Commercial Bank Debt and Debt Service Reduction Operations, 1987-July 1994 1/

(In millions of U.S. dollars)

	Debt Restructured Under DDSR Operation 3/ (1)	Debt and Debt Service Reduction (DDSR) 2/ — Debt Reduction: Buy-Back (2)	Debt Reduction: Discount Exchange 4/ (3)	Debt-Service Reduction: Principal Collateralized Par Bond 4/ (4)	Debt-Service Reduction: Other Par Bond 4/ (5)	Prepayments through Collateral-ization (6)	Total (7)=(2)+..+(6)	Total Debt and Debt Service Reduction/ Debt Restructured (7)/(1)	Cost of Debt Reduction 5/
					(Concluded Agreements)				
Argentina (1992)	19,397	--	2,356	4,291	--	2,739	9,386	48.4	3,059
Bolivia	643	331	232	29	--	20	612	95.2	61
(1987)	473	253	182	--	--	7	442	93.5	35
(1993)	170	78	50	29	--	13	170	100.0	26
Brazil (1992)	40,600	--	4,974	3,996	337	3,891	13,198	32.5	3,900
Bulgaria (1993)	6,186	798	1,865	--	421	443	3,527	57.0	652
Chile (1988)	439	439	--	--	--	--	439	100.0	248
Costa Rica (1989)	1,456	991	--	--	101	36	1,128	70.5	196
Guyana (1992)	69	69	--	--	--	--	69	100.0	10
Jordan (1993)	736	--	84	111	--	117	312	42.5	118
Mexico	51,902	--	8,306	7,130	--	7,737	23,173	44.6	7,677
(1988)	3,671	--	1,115	--	--	555	1,670	45.5	555
(1989)	48,231	--	6,838	6,484	--	7,222	20,544	42.6	7,122
Mozambique (1991)	124	124	--	--	--	--	124	100.0	12
Niger (1991)	111	111	--	--	--	--	111	100.0	23
Nigeria (1991)	5,811	3,390	--	651	--	352	4,393	75.6	1,708
Philippines	5,812	2,602	--	516	116	467	3,701	63.7	1,795
(1989)	1,339	1,339	--	--	--	--	1,339	100.0	670
(1992)	4,473	1,263	--	516	116	467	2,362	52.8	1,125
Uganda (1993)	152	152	--	--	--	--	152	100.0	18
Uruguay (1991)	1,608	633	--	160	--	95	888	55.2	463
Venezuela (1990)	19,700	1,411	511	2,012	471	1,639	6,043	30.7	2,585
Zambia (1994)	414	414	--	--	--	--	414	100.0	47
					(Agreements in Process of Conclusion)				
Dominican Republic (1993)	776	272	177	--	--	63	511	65.8	149
Ecuador (1994) 6/	4,471	--	1,207	778	--	583	2,568	57.4	535
Poland (1994) 7/	9,271	1,854	1,840	1,334	77	666	5,770	62.2	1,740
Total	169,678	13,591	21,199	20,362	1,523	18,886	75,560	44.5	24,996

Sources: IMF staff estimates.

1/ Debt and debt service reduction are estimated by comparing the present value of the old debt with the present value of the new claim, and adjusting for prepayments made by the debtor. The methodology is described in detail in Annex I of Private Market Financing for Developing Countries (International Monetary Fund, December 1992). The amounts of debt reduction contained in this table exclude debt extinguished through debt conversions.

2/ The figure for debt service reduction represents the expected present value of the reduction in future interest payments arising from the below-market fixed interest rate path on the new instruments relative to expected future market rates. The calculation is based on the estimated term structure of interest rates at the time of agreement in principle.

3/ Includes debt restructured under new money options for Mexico (1989), Uruguay (1991), Venezuela (1989), and Philippines (1992); the Philippines' (1989) new money option was not tied to a specific value of existing debt.

4/ Excludes prepayment of principal and interest through guarantees.

5/ Cost at the time of operation's closing. Includes principal and interest guarantees, buy-back costs, and for Venezuela, resources used to provide comparable collateral for bonds issued prior to 1990. Excludes cash downpayments related to past due interest.

6/ Based on an assumed allocation of exposure of 60 percent to the discount bond and 40 percent to the par bond.

7/ Uncertain, based on preliminary information regarding allocation of exposure by creditors and assuming that sufficient waivers are obtained for the buyback.

Table 3. Bank Menu Choices in Debt Restructuring Packages

(In percent of total eligible bank debt)

Country	Debt Reduction		Debt Service Reduction			
	Buy-Back	Discount Exchange	Principal Collate-ralized Par Exchanges	Other Par Exchanges	New Money	Other Non-DDSR Options
Argentina	--	34	66	--	--	--
Bolivia	46	35	19	--	--	--
Brazil	--	35	32	5	6	22
Bulgaria	13	60	--	27	--	--
Costa Rica	63	--	--	37	--	--
Dominican Republic	35	65	--	--	--	--
Jordan	--	33	67	--	--	--
Mexico	--	43	47	--	11	--
Nigeria	62	--	38	--	--	--
Philippines (1989) 1/	100	--	--	--	--	--
Philippines (1992)	28	--	42	17	13	--
Uruguay	39	--	33	--	28	--
Venezuela	7	9	38	15	31	--
Total 2/	7	32	40	5	10	6

Sources: National authorities; and IMF staff estimates.

1/ The agreement included new money but was not tied to a specific amount of eligible debt.
2/ Weighted average.

Table 4. Buy-Back Equivalent Prices in Debt and Debt Service Reduction Operations 1/

(In percent of face value)

	Debt Reduction		Debt Service Reduction			
	Buy-Back	Discount Exchange	Principal Collate-ralized Par Exchange	Other Par Exchanges	Overall Package	Secondary Market Price at Time of Agreement in Principle
Argentina	--	25	32	--	30	37
Brazil	--	26	36	19	30	35
Bulgaria	25	18	--	8	18	27
Costa Rica 2/	16	--	--	29 3/	18	19
Dominican Republic	25	28	--	--	26	23
Ecuador 4/	--	19	29	--	24	23
Jordan	39	25	41	--	35	39
Mexico 2/	--	33	39	--	36	44
Nigeria 2/	40	--	36	--	39	40
Philippines (1989)	50	--	--	--	50	50
Philippines (1992)	52	--	45	28	48	53
Poland 5/	41	14	22	--	25	39
Uruguay 2/	56	--	45	--	53	54
Venezuela 2/	45	35	38	25	38	46
Total 6/	41	29	37	21	34	40

Source: IMF staff estimates.

1/ The buy-back equivalent price for a debt exchange is the total value of enhancements as a proportion of the total reduction in claims payable to banks, including effective prepayments through collateralization, evaluated at prevailing interest rates at time of agreement in principle. This is the price at which the debt reduction achieved through a debt exchange is equivalent to the debt reduction under a buy-back at this price.

2/ The calculations include estimates of value recovery clauses.

3/ Weighted average of the buy-back equivalent price of the series A par bond (33 cents), the series B par bond (0 cents), and the series A past due interest bond (119 cents).

4/ Estimates for the overall package based on an assumed allocation of 60 percent to the discount bond and 40 percent to the par bond.

5/ Estimates for the overall package based on preliminary information regarding allocations by creditors and assuming that sufficient waivers are obtained for the buyback.

6/ Weighted average.

however, were deposited with the collateral agent (the Federal Reserve Bank of New York), and the downpayment on PDI (US$0.7 billion) and the bonds related to unreconciled debts were deposited with the escrow agent (the Bank of England) on the closing date. Reconciliation of the remaining principal was completed on September 27, 1993, and the release of PDI bonds and the corresponding cash was made in four tranches: the first on October 29, 1993 (83 percent); the second on December 29, 1993 (14 percent); the third on February 28, 1994 (3 percent); and the fourth and last on April 28, 1994 (negligible amounts).

Brazil completed one of the largest and most complex debt and debt service reduction operations on April 15, 1994. Completion of the deal came almost two years after the agreement in principle, following four extensions of the closing date. Since a Fund stand-by arrangement was not likely to be in effect at closing and this was a condition in the term sheet, a waiver from bank creditors had to be requested, and it was granted on March 24, 1994. The process was also delayed because of problems in attaining full creditor participation. 1/

The deal restructured US$40.6 billion in eligible principal and US$6.0 billion in PDI. Out of the menu of six options, only five were actually used. Creditors accepted the May 1993 limits suggested by the authorities on par and new money options and the minimum allocation for the discount bonds. The final allocation was: (i) 35 percent for the discount bond; (ii) 32 percent for the par bond; (iii) 22 percent for the capitalization bond with temporary interest reduction; (iv) 6 percent to the new money option; and (v) 5 percent to the front-loaded interest reduction bond (FLIRB). No allocation was made to the restructuring option.

Enhancements required for the operation are estimated at US$3.9 billion, of which US$2.8 billion was delivered at closing and the rest is to be phased in over a two year period in four semiannual installments. Phase-in bonds and partly collateralized bonds were issued at closing, with these bonds to be exchanged for fully collateralized instruments over the next two years. 2/ The Bank for International Settlements is serving as the collateral agent. The initial cost of the operation was financed with US$2.4 billion from Brazil's own resources and US$0.4 billion collected from the new money option, with the remainder also expected to come from the country's own resources. Zero-coupon U.S. Treasury securities used as collateral for the deal were purchased by Brazil in the secondary market.

1/ In the end, one major creditor, a large nonbank investor holding roughly US$1.4 billion of Brazil's debt, refused to participate in the deal, and that creditor subsequently has filed a law suit in the United States to force payment of past due interest on Brazil's original debt.

2/ These phase-in and partly collateralized bonds apply only to the par and discount bond options. The FLIRBs were fully collateralized at closing, and the other options did not require collateral.

In one of the fastest completions of a menu based debt and debt service reduction operations to date, Jordan concluded a deal with its banks on December 23, 1993, two weeks after the formal signing of the agreement and less than six months after reaching an agreement in principle. The package covered eligible principal of US$740 million and PDI of US$120 million. Following considerable buybacks by the authorities in the secondary market before the commitment date (about 12 percent of the total), the final allocation of eligible principal was: (i) 67 percent for the par bond; (ii) 33 percent for the discount bond; and (iii) negligible amounts to the (below-market price) buyback. The US$150 million cost of the operation included US$29 million for cash payments on PDI. Financing of the operation was covered entirely by the country's own resources.

In what market observers regarded as an unexpected development, Bulgaria reached an agreement in principle with its commercial bank creditors on November 24, 1993. A term sheet was distributed to banks on March 11, 1994, and the package was completed on July 29, 1994. Eligible principal amounted to US$6.2 billion, including US$1.9 billion in short-term debt. The menu consisted of three options: (i) a 50 percent discount exchange; (ii) a temporary interest reduction par exchange (FLIRB); and (iii) a buyback at 25 3/16 cents on the dollar per unit of claim. Partial interest payments were resumed shortly after reaching the agreement in principle (retroactive to March 1993) at a rate of 5 percent of amounts due, roughly US$30 million per quarter.

The 30-year bullet discount bond bears an interest rate of 13/16 over LIBOR and includes full principal collateral, as well as a 12-month rolling interest guarantee at 7 percent. The FLIRB carries an 18-year maturity with eight years of grace. The interest rate starts at 2 percent in the first year and increases in steps each year, reaching 3 percent by year seven; subsequently, it reverts to a market rate of 13/16 over LIBOR for the rest of its maturity. There is no principal guarantee, but the bond has a 12-month rolling interest guarantee at 2.6 percent (for the seven years of interest reduction), capitalizing earned income until it reaches 3 percent. Amortizations are due in even semiannual payments. Special issues of discount and FLIRB bonds will be made for 30 percent of the short-term debt allocated to the different options at an interest rate 1/2 percent higher than that on the bonds exchanged for medium- and long-term debt. Some debt reduction on PDI is achieved through a lowering of the interest rate for capitalization purposes. The package also includes a value recovery clause on the discount bonds linked to GDP performance.

The term sheet limited the allocation for the FLIRBs to 30 percent. Rebalancing was not needed by the commitment date (May 18, 1994) as the allocation was: (i) 60 percent for the discount bond; (ii) 27 percent for the FLIRB; and (iii) 13 percent for the buyback. Interest arrears estimated at about US$1.9 billion were included in the operation. A cash payment of 3 percent was made, with remaining amounts (other than those purchased in connection with the buyback option) rescheduled in the form of a 17-year uncollateralized PDI bond bearing a market interest rate of 13/16 over LIBOR and a grace period of seven years. Amortizations are due in semiannual payments according to a backloaded schedule. The upfront cost of the operation was US$716 million. The cost was initially met entirely by the country's own resources, but it is being proposed that financing for part of the operation be provided by the World Bank and the Fund.

On February 14, 1994, the Dominican Republic formally signed an agreement that restructured US$1.1 billion of commercial bank debt, including interest arrears of US$320 million. Closing of the operation, originally scheduled for end-March 1994, was extended to June and has recently been extended again to end-September 1994. After an initial allocation failed to provide the 50 percent debt reduction included in the termsheet, creditors were asked to rebalance their exposure. The final allocation on eligible principal was 65 percent to the discount exchange, 35 percent to the buyback, and no allocation to the FLIRB. The upfront cost of the operation is estimated at about US$190 million and is to be financed entirely by the country's own resources.

A highly innovative and somewhat controversial agreement in principle was reached between Poland and its bank advisory committee on March 10, 1994. The larger than anticipated debt reduction entailed in the agreement produced a significant decline in the price of Polish debt in the secondary market after the announcement of the heads of terms. The agreement restructures US$12.7 billion, comprising virtually all outstanding commercial bank debt. A term sheet was distributed to banks on May 23, 1994, and commitments were received on June 29, 1994. The commitment date was subsequently extended to improve chances that approval of the waiver for the buyback would be received from creditors holding 95 percent of the debt. Eligible principal amounts to US$9.3 billion and includes US$1.1 billion of short-term debt. The menu for eligible principal includes six options, four for medium- and long-term debt and two for short-term debt. The options for medium- and long-term principal are: (i) a buyback at 41 cents on the dollar per unit of claim; (ii) a 45 percent discount bond exchange; (iii) a below market interest rate par exchange; and (iv) a new money option, whereby in exchange for 35 percent of new money old claims are rescheduled on somewhat more favorable terms than in the other options. The options for short-term principal are: (i) a buyback at 38 cents on the dollar per unit of claim; and (ii) a below market interest rate par bond exchange, with an interest rate profile marginally higher than that for the par bond exchange for medium- and long-term principal.

The 30-year bullet discount bond bears a market interest rate of 13/16 over LIBOR and includes full principal collateral. The 30-year bullet par bond carries a prearranged interest rate profile starting at 2.75 percent in year one, rising in increments to 5 percent in year twenty-one, and remaining at that level thereafter. The interest rate profile on the short-term par exchange is somewhat higher than the other par bond in that the interest rate rises at a somewhat faster rate after year one. Both par bonds include full principal collateral. The new money option involves the exchange at par of up to 5 percent of eligible principal for a debt conversion bond with the creditor providing US$35 in new money for each US$100 in debt tendered. The 25-year debt conversion bond has no principal collateral and carries a sub-market interest rate staring at 4.5 percent in year one and increasing to 7.5 percent in year eleven and thereafter. This is an innovative feature of the package, because in the past these types of bonds involved no debt or debt service reduction. This bond has a grace period of 20 years with equal semiannual amortization payments. The 15-year new money bond also has no principal collateral. It carries a market rate of 13/16 over LIBOR, a grace period of 10 years, and an even amortization schedule. Another innovative feature in the deal is that none of the bonds in the package has interest guarantees.

In the package, the treatment of the US$3.4 billion of PDI was effectively subject to debt and debt service reduction. Debt reduction of about 15 percent was obtained by reducing the capitalization rate on interest arrears. Debt service reduction also was obtained through a below market interest rate for the PDI bond. In theory, there are five modalities for dealing with PDI, two for PDI associated with short-term principal and three for PDI associated with medium- and long-term principal. The two modalities for PDI associated with short-term principal are exactly the same options as for short-term principal. The three modalities for PDI associated with medium- and long-term principal include: (i) a cash payment corresponding to 85 percent of interest due in December 1989 to regularize previous anomalies and catch up payments consistent with 30 percent of interest due on medium- and long-term principal accruing since May 1993 (about US$160 million); (ii) a buyback at the same price as medium- and long-term principal; and (iii) a PDI bond at below market rates. The 20-year uncollateralized PDI bond carries an interest rate that starts at 3.25 in year one and raises to 7 percent in year nine and thereafter. The amortization schedule on these bonds provides for eight years grace with backloaded semi-annual payments subsequently.

Partial interest payments were increased to 30 percent of interest due on medium- and long-term principal starting in March 1994. The agreement does not include a rebalancing clause, except for the limit of 5 percent of eligible principal on the new money option and an undetermined maximum on the buyback in the event that insufficient financing is available. 1/ There is no currency option or a value recovery clause. A debt conversion program is expected to be implemented shortly. The cost of the operation is estimated at US$1.8 billion to be financed with resources from the Fund, the World Bank, bilateral official sources, the new money option, and Poland's own contribution. The expected closing is mid-November 1994.

Ecuador reached an agreement in principle with its bank advisory committee on May 2, 1994, to restructure commercial bank debt amounting to

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1/ In the agreement in principle, the authorities expressed their preference for an allocation to the medium- and long-term par bond of less than 45 percent.

US$7.1 billion. A term-sheet was circulated to banks on June 14, 1994. The menu of option for eligible principal, amounting to US$4.5 billion, includes: (i) a 45 percent discount exchange and (ii) a par exchange at a sub-market interest rate. The 30-year bullet discount bond bears a market interest rate of 13/16 over LIBOR and includes full principal collateral and a 12-month rolling interest guarantee at 7 percent. The 30-year bullet par bond bears a predetermined below market interest rate profile starting at 3 percent in year one, increasing to 5 percent by year eleven, and remaining at that rate for the balance of the bond's maturity. As with the discount bond, the par bond has full principal collateral, but the 12-month interest guarantee was fixed at 3.75 percent in year one, with income earnings capitalizing until 5 percent is achieved. The term-sheet does not include any mandatory allocation nor rebalancing clauses. The term-sheet also does not include a currency option nor a value recovery clause. While the critical mass of creditor participation was not achieved by the commitment date (August 2, 1994), it is expected to be reached shortly. Based on preliminary information, about 60 percent of debt was allocated to the discount bond and 40 percent to the par bond.

PDI is estimated at US$2.6 billion. Implicitly, this estimate involves some debt forgiveness since PDI is calculated from end-October 1986 to end-December 1993 at three-month LIBOR + 13/16, instead of the interest rates on the original loan agreements; 1/ from January 1994 through the closing date, interest will accrue at a 4 percent fixed rate. The agreement calls for PDI to be treated separately through: (i) a cash payment of US$75 million; (ii) issuance of a 10-year uncollateralized interest equalization bond for US$191 million to regularize previously discriminatory payments to creditors; and (iii) a 20-year uncollateralized PDI bond bearing a market interest rate of 13/16 over LIBOR and a 10 year grace period. The amortization schedule consists of backloaded semi-annual payments. The PDI bond introduces the innovation of having the option to capitalize a declining fraction of interest due in the first six years (i.e., debt relief). Partial interest payments were resumed in May 1994 at a rate of US$5 million a month (retroactive to January 1994).

The upfront cost of the operation has been estimated at about US$610 million. Financing is expected to come from the Fund (including set-asides of 25 percent of purchases accumulating under the current stand-by arrangement), the World Bank, official bilateral sources, and the country's own resources. The commitment date for submission of preferred options is August 2, 1994, and the closing of the operation has been tentatively set for end-February 1995.

Zambia completed a comprehensive buyback at 11 cents per dollar of principal (PDI attached) on July 26, 1994. Eligible principal amounted to US$414 million and included commercial bank debt, as well as trade and

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1/ Original contractual interest rates on Ecuador's debt were generally high, with some loans priced at LIBOR + 2 1/4.

suppliers credits. The cost of the operation was roughly US$47 million, financed by a US$22 million grant from the Debt Reduction Facility for IDA countries and grants from Germany (US$6 million), the Netherlands (US$5 million), Sweden (US$7 million), and Switzerland (US$7 million).

With regard to reschedulings of commercial bank liabilities, South Africa agreed on a fourth (and final) arrangement with its commercial banks in end-September 1993. The arrangement which became effective at the beginning of 1994, reschedules those debts (some US$5 billion) that were still subject to the "standstill" on repayments imposed in 1985. The arrangement calls for a cash payment of 10 percent of outstanding debt, with the remainder being rescheduled for eight years on a graduated schedule. Interest margins are to be negotiated between the South African debtors and their foreign creditors (with margins exceeding 2.5 percent over the relevant base rate requiring approval by exchange control).

A rescheduling agreement between Gabon and its commercial bank creditors was finally signed on May 26, 1994, and became effective on July 1, 1994. The agreement covers principal debts contracted before September 1986 amounting to US$100 million rescheduled for 10 years with 2 1/2 years of grace. Interest arrears accumulated since 1986, estimated at US$50 million, were also rescheduled at shorter maturities. This operation reschedules the majority of the country's commercial bank debt.

On July 30, 1993, a preliminary rescheduling agreement was reached between Russia and its bank creditors. This agreement rescheduled the entire stock of pre-cutoff date debt with a ten-year maturity and a five-year grace period. Russia agreed to pay US$500 million toward interest accrued but unpaid through end-1993. Remaining interest arrears were expected to be rescheduled on the same terms as pre-cutoff date principal. In the event, Russia did not make payments on interest, and the agreement did not come into effect. Major stumbling blocks were the Russian authorities' refusal to waive sovereign immunity and questions regarding which Russian Government entity should be the signing agent for the agreement. Discussions between Russia and its bank creditors remain stalled.

3. Debt conversion activity

After reaching a peak in 1990, debt conversions have fallen over the last three years. In 1993, at US$1.4 billion, debt conversions were at their lowest level since the outbreak of the debt crisis over a decade ago (Table 5). High debt prices in the secondary market, regularization of relations with commercial bank creditors, and advances already made in most privatization programs have been responsible for the declining activity.

Moreover, Argentina, which accounted for two-thirds of conversion activity in 1992, shifted its privatization program to encourage exchanges for foreign currency denominated domestic debt. With buoyant equity markets worldwide, Argentina also elected to privatize part of the state oil company

Table 5. Debt Conversions, 1984-First Quarter 1994 1/

(In millions of U.S. dollars)

	1984-86	1987	1988	1989	1990	1991	1992	1993	QI 1994
Argentina	500	--	1,146	1,534	6,464	132	2,825 2/	371	5
Brazil	1,440	336	2,096	946	283	68	95	219	30
Chile	1,314	1,979	2,940	2,767	1,096	828	385	298	2
Costa Rica	7	89	44	124	17	2	--	--	--
Ecuador	--	127	261	32	45	20	50	2	--
Honduras	--	9	14	35	33	52	39	--	--
Jamaica	--	1	9	23	22	36	14	3	--
Mexico	413	1,680	1,056 3/	532	221	1,956	344	--	--
Nigeria	--	--	40	257	217	119	122	35	--
The Philippines	81	450	931	630	378	489	379	349	...
Tanzania	--	--	--	--	11	21	33	52	...
Uruguay	--	--	60	27	4	44	34	48	...
Venezuela	--	--	50	544	595	343	148	87	--
Yugoslavia	--	--	135	1,369	681	631	...	...	...
Total	3,755	4,671	8,782	8,820	10,067	4,741	4,468	1,464	37

Sources: Central Bank of Argentina; Central Bank of Brazil; Central Bank of Chile; Mexico, Ministry of Finance; Central Bank of Philippines; Bank of Jamaica; Central Bank of Venezuela; and IMF staff estimates.

1/ Face value of debt converted under official ongoing schemes. Figures do not include large-scale, one-off cash buy-backs and debt exchanges.

2/ Excludes US$0.3 billion from the privatization of the state power company deposited in a trust fund for later debt conversion as well as US$0.5 billion in foreign currency bonds of the Argentine Government (BOCONES) retired with the privatization of the state gas and power companies.

3/ Does not include an estimated US$6-8 billion related to payment at a discount of private-sector debt following the August 1987 signing of an agreement to restructure debt of the foreign exchange risk coverage trust fund (FICORCA).

Yacimientos Petroliferos Fiscales (YPF) through an international share placement, instead of by means of conversions made with commercial bank debt. Despite these developments, Argentina still accounted for about one-quarter of total bank debt conversions in 1993. While involving only small amounts, debt conversions more than doubled in Brazil during 1993, reflecting some pick-up in interest by foreign investors in the country's privatization program. Debt conversion activity in Chile fell by one quarter in 1993, with the high price of commercial bank debt in the secondary market continuing to curtail demand for debt conversions under the formal mechanisms. All conversion activity took place through "informal" schemes under which residents retire their debt to the Central Bank by delivery of Chilean debt acquired in the secondary market.

Among other countries, conversions in the Philippines declined by about 15 percent as investors' interest dropped and debt prices edged-up during most of 1993. Activity was negligible in Nigeria owing to the suspension of its program, whereas in Mexico no activity was recorded for the same reason. In Venezuela, political and financial uncertainties were factors behind a further reduction in conversion activity in 1993.

4. Secondary market developments

After remaining stable in the first quarter of 1993, secondary market prices for bank claims and Brady bonds rose sharply over the remainder of the year and into 1994 (Charts 1 and 2). The weighted average of prices for claims on 15 heavily indebted countries peaked in January 1994 at about 70 cents on the dollar (compared with 51 cents in December 1992), its highest level in the last seven years during which time the market has evolved. The strength in secondary market prices reflected improving economic situations in major developing countries and greater investor interest in emerging market securities. Subsequently, prices fell sharply in response to higher interest rates in the United States and market reactions to adverse economic and political developments in some major countries. Moreover, during the 1993 run up in prices, certain investor groups built up some highly leveraged positions; their subsequent need to unwind these positions added to the drop in debt prices during the first half of the year. By end-June, the weighted average price for the 15 countries had fallen to 58 cents on the dollar.

The stripped price 1/ of Argentina's restructured bank claims rose by 82 percent in 1993, reaching about 80 cents on the dollar by year-end. Completion of the debt and debt service reduction operation, good economic prospects, the privatization of the largest public enterprise (YPF), and Congressional approval of the social security reform accounted for the solid

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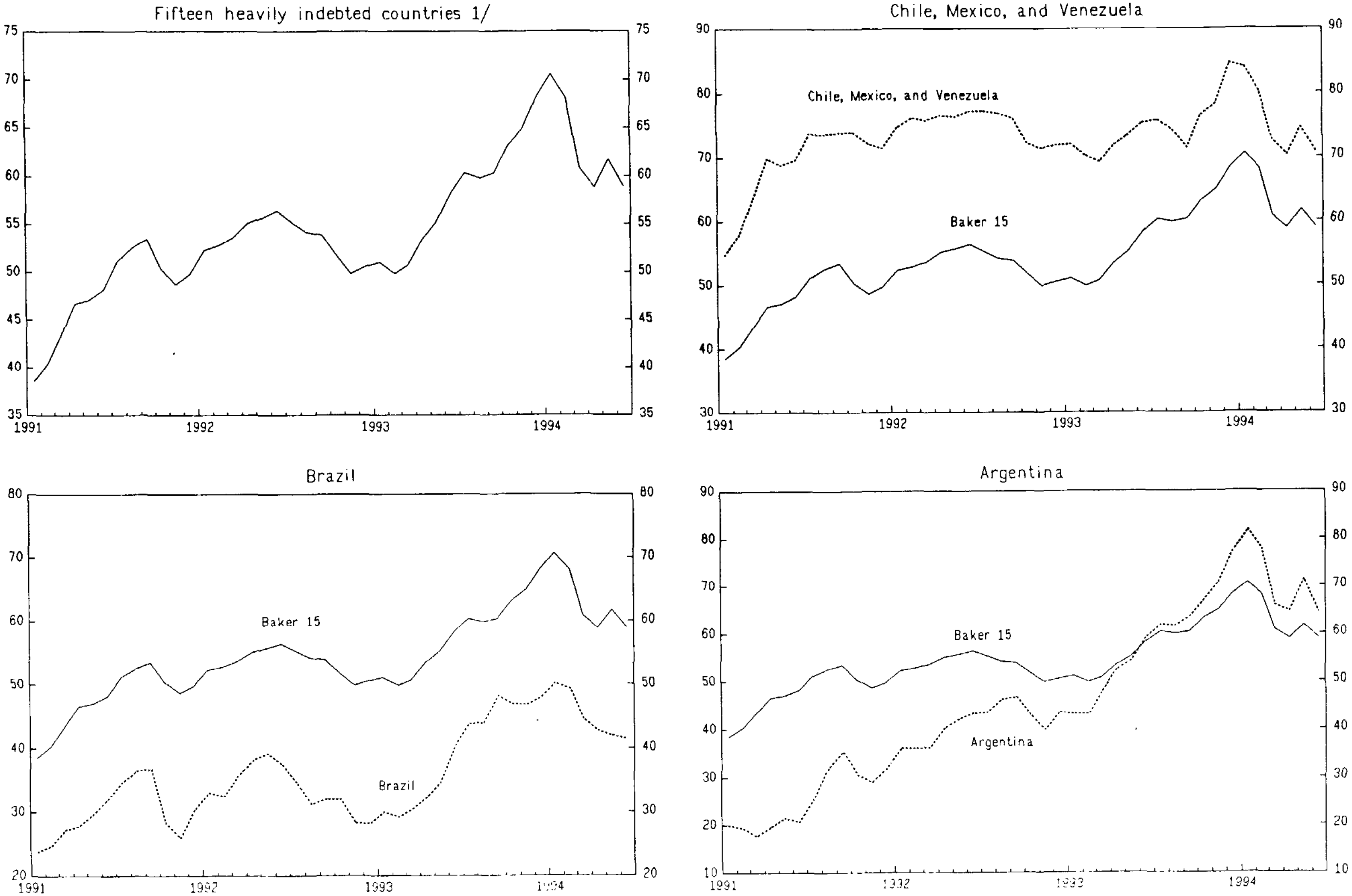
1/ The stripped price is a measure of country risk. It is the ratio of the market value of unguaranteed payments to the present value of such payments discounted at a risk-free interest rate. See Annex II to Private Market Financing for Developing Countries, IMF (1992).

CHART 1

SECONDARY MARKET PRICES OF BANK CLAIMS ON SELECTED LATIN AMERICAN COUNTRIES

(In percent of face value)



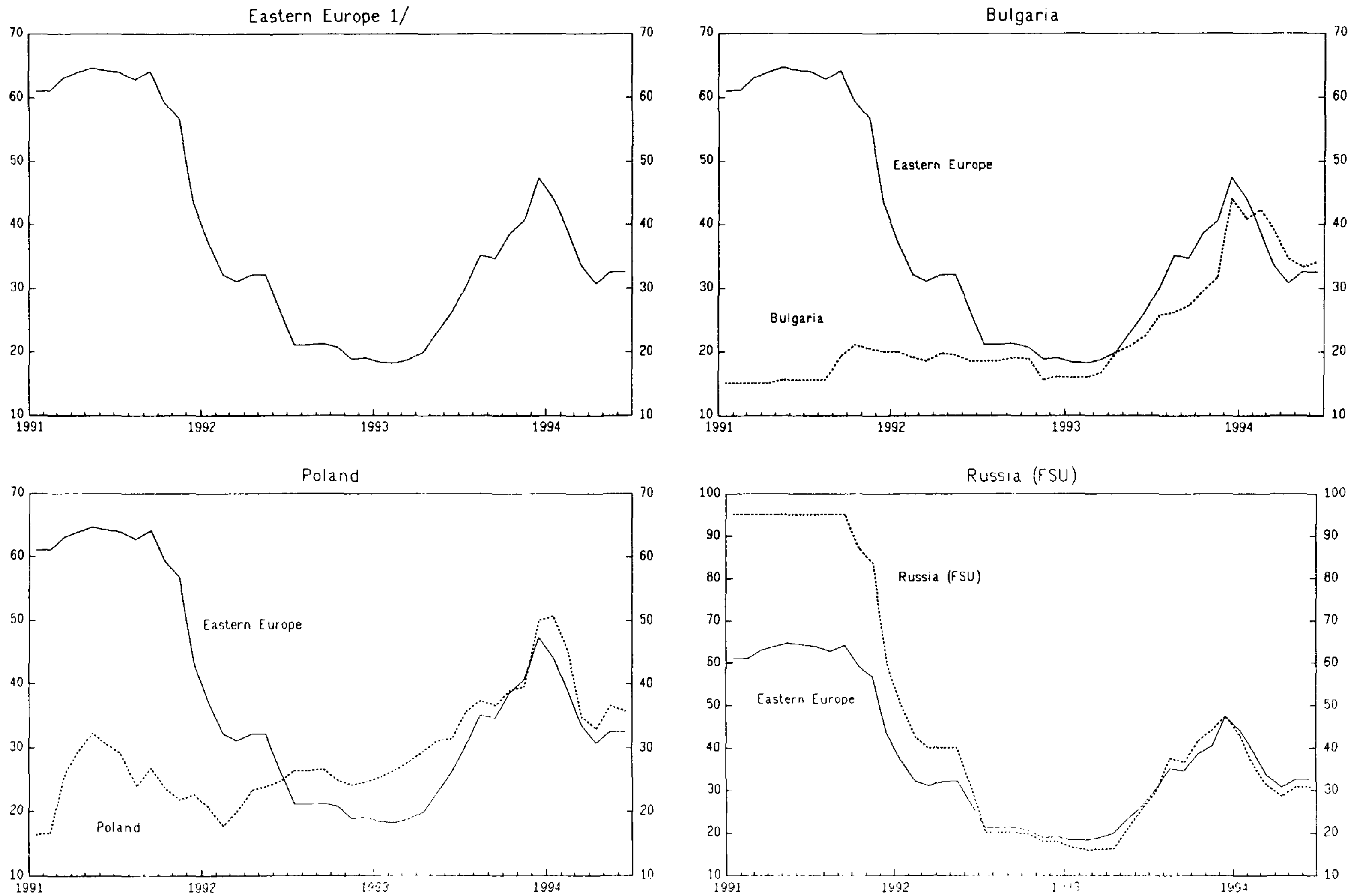
Sources: Salomon Brothers; and ANZ Grindlays Bank.

1/ Argentina, Bolivia, Brazil, Chile, Colombia, Cote d'Ivoire, Ecuador, Mexico, Morocco, Nigeria, Peru, the Philippines, Uruguay, Venezuela, and Yugoslavia.

CHART 2

SECONDARY MARKET PRICES OF BANK CLAIMS ON SELECTED EASTERN EUROPEAN COUNTRIES

(In percent of face value)



Sources: Salomon Brothers; and ANZ Grindlays Bank.
1/ Bulgaria, the former U.S.S.R., and Poland.

performance of Argentine debt prices. During the first half of 1994 prices fell; by end-June 1994, the price of Argentine claims had declined to 62 cents on the dollar.

Following market trends, the price of claims on Brazil also performed well in 1993. 1/ Debt prices climbed by 62 percent in 1993, reaching about 50 cents on the dollar by year-end, despite political uncertainties and difficulties in completing the debt deal. By end-June 1994, the price of Brazilian claims stood at 41 cents on the dollar. In Mexico, while the stripped price of its claims did not change much over the first three quarters of 1993, prices jumped in the last quarter by about one-third following the approval of the North American Free Trade Agreement. By year end, Mexican Brady bonds were trading at almost 90 cents on the dollar. Concerns resulting from an uprising in Chiapas and the assassination of the leading presidential candidate, together with the tightening of monetary policy in the United States, lead to a decline in the stripped price of Mexican bonds to 73 cents on the dollar by June 1994. The stripped prices on Venezuela's debt increased by about one-quarter to reach about 69 cents on the dollar at the end of 1993 despite political uncertainties. Concerns about the health of the banking system in the wake of the failure of a major bank and more generally about the country's economy, contributed to a sharp decline in Venezuelan claims in the first half of 1994, with such claims falling to 42 cents on the dollar in June.

In 1993 and early 1994, considerable price speculation accompanied reports that countries were making progress in their discussions with commercial banks or were thought to be close to an agreement in principle. In the case of Ecuador, the price of its debt increased by 84 percent in 1993 to reach a level of about 53 cents on the dollar at year-end (PDI attached). For Peru, expectations on a debt conversion program linked to privatization ran prices up sharply; the price of Peruvian claims rose by about 250 percent in 1993, to close the year at 69 cents on the dollar (PDI attached). In both cases, prices slid in the first half of 1994, falling to 40 cents and 48 cents, respectively, in June.

Price developments on Eastern European countries' debt resemble the behavior of debt prices for other indebted countries. Prices of claims on Eastern European countries increased by about 150 percent to reach almost 50 cents on the dollar by end-1993, before declining by one-third in the first half of 1994. The announcement of Bulgaria's agreement in principle with commercial banks in November 1993 produced an increase in the price of its claims by over 50 percent to about 44 cents on the dollar; subsequently, it has fallen to 33 cents at end-June 1994. Expectations of similar developments for Poland contributed to a rise in the price of Polish debt to

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1/ Brazilian MYDEFA stopped trading in February 1993 pending the completion of the debt and debt service reduction operation. Since then, price estimates have been based on IDU bond price behavior. The Brady bonds were issued in mid-April 1994.

a peak of 51 cents on the dollar in January 1994, before it dropped in line with the general fall in debt prices. The decline in the price of Polish debt accelerated following the announcement of the agreement in principle in March 1994, falling to 32 cents; it recovered to 35 cents by June 1994.

There are indications of significant growth in the volume of debt instruments trading in the secondary market during 1993. Higher demand continues to be derived from institutional investors attracted to securitized commercial bank debt.

These instruments continue to be relatively liquid, as reflected in the relatively tight bid-ask spreads. Market analysts estimate that trading volume reached over US$1 trillion in 1993. 1/ For short periods of time during the turbulence in bond markets during the first half of 1994, however, trading is reported to have slowed appreciably, with bid-ask spreads widening substantially and dealers at times refusing to quote prices.

III. Recent Developments in Private Market Financing

Private market financing flows to developing countries increased significantly in 1992 and 1993 (Chart 3). Bond and equity flows accounted for much of the increase. The rapid expansion was mirrored in a broadening of the spectrum of developing country borrowers attracting international investors, although portfolio flows continued to be concentrated in a few key countries in Asia, Europe, and Latin America. In contrast, medium- and long-term bank lending to developing countries remained moderate, although banks showed a renewed interest in such lending, albeit on a highly selective basis.

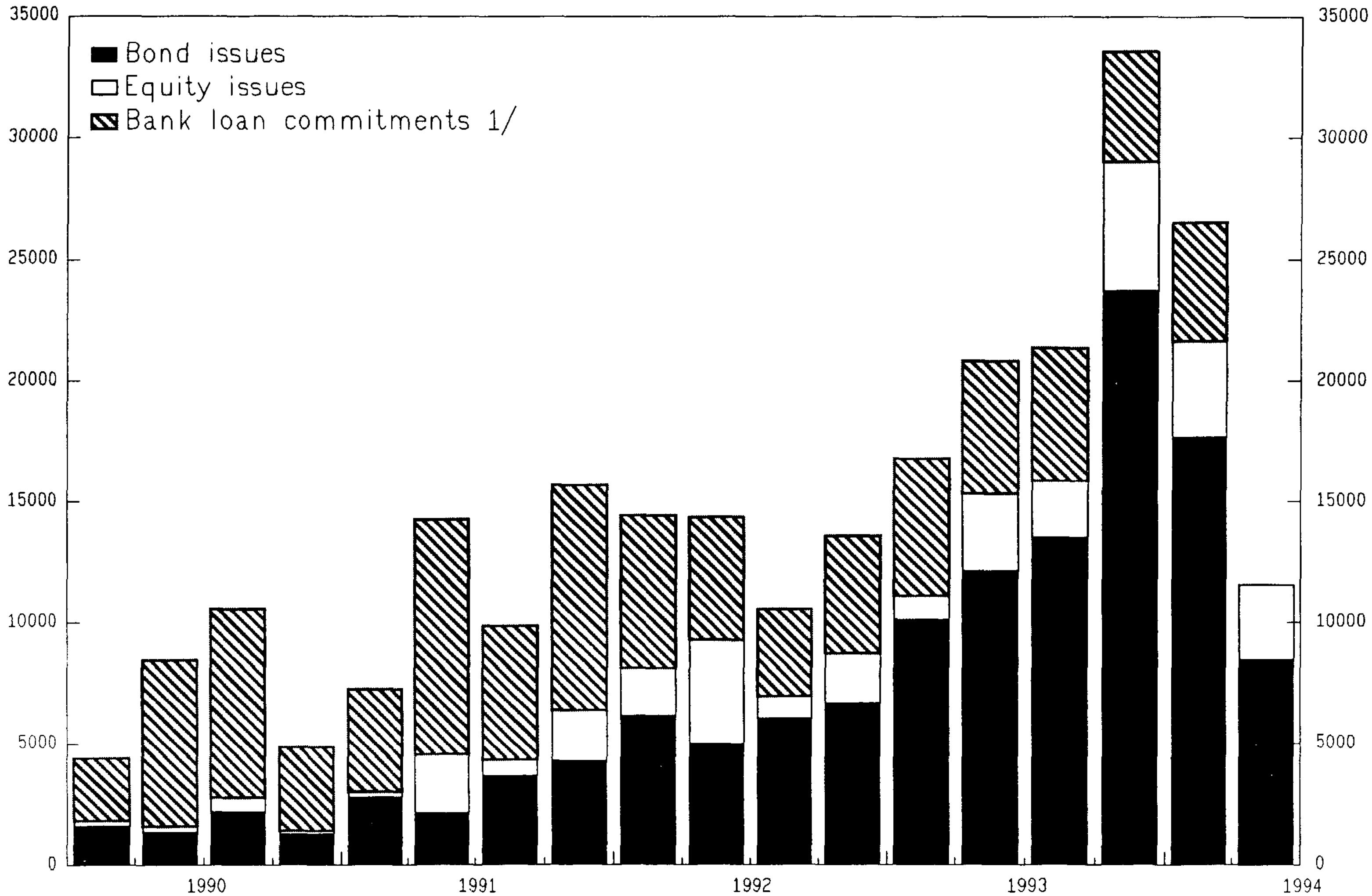
In 1994, the situation changed dramatically. With higher U.S. interest rates, as well as unfavorable economic and political developments in some major borrowing countries, bond and equity issuance by developing countries fell significantly between February and April 1994. These inflows registered a modest recovery in May and June 1994; however, they remain vulnerable, especially owing to uncertainties regarding U.S. interest rates. Despite the recent market correction, portfolio flows in the first half of 1994 were still significantly higher than levels observed in the early 1990s.

1/ The Emerging Markets Traders Association (EMTA) estimated volume at US$733.7 billion in 1992. EMTA is planning to implement a computerized trade-clearing system to verify bond and loan trades. The system is expected to be in place by January 1995 and will provide uniform pricing as well as daily volume information, reducing transaction costs, contentious trade disputes, and the possibility of error arising from the fact that much of the work is currently done manually.

CHART 3

PRIVATE MARKET FINANCING TO DEVELOPING COUNTRIES, 1990-94

(In millions of U.S. dollars)



Sources: International Financing Review, OECD; and staff estimates.
1/ Medium- and long-term bank loan commitments only.

1. Bonds

Bond placements by developing country borrowers reached US$59.4 billion in 1993, more than twice the amount placed in 1992 (Tables 6 and 7). 1/ There was a strong acceleration in bond issuance in the final quarter of 1993; bonds issued in that quarter amounted to US$23.7 billion, almost equal to total bonds issued in 1992. This surge reflected a decline in U.S. interest rates combined with relatively high returns in emerging markets, which encouraged a broader range of mainstream institutional investors to participate more actively in these markets. The continued implementation of prudent macroeconomic policies and structural adjustments in borrowing countries also improved investors' confidence in emerging market securities. Developing countries' share of total international bond issues rose from 7.1 percent in 1992 to 12.4 percent in 1993, with the share reaching 20.1 percent in the fourth quarter of 1993. The average size of bond placements also increased from US$111 million in 1992 to US$125 million in the first half of 1993, and to US$135 million in the second half of the year. In particular, there were a number of sizable issues by some borrowers in Latin America.

In the first half of 1994, volatile market conditions led to a sharp decline in the volume of international bond issuance by developing countries to US$26.1 billion, with most of the issues being placed in the first quarter of the year and in June. Beginning in February with the rise in bond yields worldwide, both issuers and investors pulled back and issuing activity virtually dried up in April. For the first half of 1994 as a whole, developing countries' share in total international bond issues fell to 12 percent. The decline was particularly notable for countries in Europe and Latin America.

The terms on new issues for many developing country borrowers improved throughout 1993 and into early 1994. The average yield spread over U.S. Treasuries at launch fell from 288 basis points in the first quarter of 1993 to a low of 187 basis points in the first quarter of 1994 (Chart 4). 2/ The average spread widened sharply in second quarter of 1994 to 259 basis points, with this increase occurring notwithstanding the fact that bonds during this period were issued primarily by higher credit-rated borrowers and carried shorter maturities. The weighted average maturity of bonds issued shortened to 6.3 years in the first half of 1994 after lengthening from 5.4 years in the first quarter of 1993 to 7.2 years in the final

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1/ Includes reported private placements and notes issued under the Euro-medium-term note programs (EMTN). The figures differ from OECD estimates which have a narrower coverage.

2/ Throughout this section, spreads refer to the difference between the yield on a bond and the yield on U.S. Treasury securities of comparable maturity or other comparable government securities if the bond is issued in other currencies. The U.S. Treasury security and other comparable government securities are used as a proxy for the risk-free return.

Table 6. International Bond Issues by Developing Countries and Regions, 1991-Second Quarter 1994 1/

(In millions of U.S. dollars)

	1991	1992	1993	1993 I	1993 II	1993 III	1993 IV	1994 I	1994 II
Developing countries	12,838	23,780	59,437	10,109	12,117	13,492	23,719	17,668	8,443
Africa	236	725	--	--	--	--	--	877	--
Congo	--	--	--	--	--	--	--	600	--
South Africa	236	725	--	--	--	--	--	--	--
Tunisia	--	--	--	--	--	--	--	277	--
Asia	3,000	5,917	20,401	2,230	3,200	3,481	11,391	7,645	5,465
China	115	1,359	3,047	406	651	1,209	681	1,500	872
Hong Kong	100	185	5,887	657	--	692	4,538	1,305	550
India	227	--	546	--	--	65	481	439	195
Indonesia	369	494	485	30	--	--	455	699	750
Korea	2,012	3,208	5,864	671	1,343	725	3,125	1,273	580
Macao	--	--	--	--	--	--	--	--	155
Malaysia	--	--	954	--	500	--	454	230	735
Pakistan	--	--	--	--	--	--	--	--	45
Philippines	--	--	1,293	170	175	190	758	154	555
Singapore	--	--	--	--	--	--	--	--	86
Taiwan Province of China	160	60	79	--	36	43	--	318	558
Thailand	17	610	2,247	296	495	557	899	1,728	384
Europe	1,960	4,561	9,638	2,863	1,257	1,988	3,530	875	439
Czech Republic	--	--	697	375	--	322	--	--	250
Czechoslovakia	277	129	--	--	--	--	--	--	--
Hungary	1,186	1,242	4,796	1,363	279	1,280	1,873	69	189
Slovak Republic	--	--	240	--	--	240	--	21	--
Turkey	497	3,190	3,905	1,125	978	145	1,657	785	--
Middle East	400	--	2,002	1,000	--	1,002	--	1,958	--
Israel	400	--	2,002	1,000	--	1,002	--	1,958	--
Western Hemisphere	7,242	12,577	27,396	4,017	7,559	7,022	8,798	6,313	2,539
Argentina	795	1,570	6,233	335	606	1,852	3,440	1,460	907
Barbados	--	--	--	--	--	--	--	--	20
Bolivia	--	--	--	--	--	--	--	10	--
Brazil	1,837	3,655	6,679	1,327	1,635	1,583	2,134	1,095	100
Chile	200	120	433	--	333	--	100	--	--
Colombia	--	--	566	--	325	50	191	250	83
Costa Rica	--	--	--	--	--	--	--	50	--
Guatemala	--	--	60	--	--	60	--	--	--
Mexico	3,782	6,100	10,783	2,205	4,136	1,851	2,591	3,307	1,390
Panama	50	--	--	--	--	--	--	--	--
Peru	--	--	30	--	--	--	30	40	40
Trinidad and Tobago	--	100	125	--	--	--	25	--	--
Uruguay		100	140	--	140	--	--	100	--
Venezuela	578	932	2,348	150	385	1,626	187	--	--
Memorandum items:									
Issues under EMTN programs	375	1,215	3,713	607	393	1,439	1,274	384	695
Argentina	--	40	930	--	50	450	430	--	300
Bolivia	--	--	--	--	--	--	--	10	--
Brazil	--	110	422	62	110	100	150	35	--
Colombia	--	--	100	--	50	50	--	--	--
Korea	--	--	177	--	93	--	84	189	--
Mexico	375	665	1,741	545	90	646	460	150	395
Philippines	--	--	150	--	--	--	150	--	--
Thailand	--	--	194	--	--	194	--	--	--
Venezuela	--	400	--	--	--	--	--	--	--
Total bond issues in international bond markets	297,588	333,694	480,997	139,867	107,050	116,253	117,827	139,820	77,881
(In percent)									
Shares of developing countries in global issuance	4.3	7.1	12.4	7.2	11.3	11.6	20.1	12.6	10.8

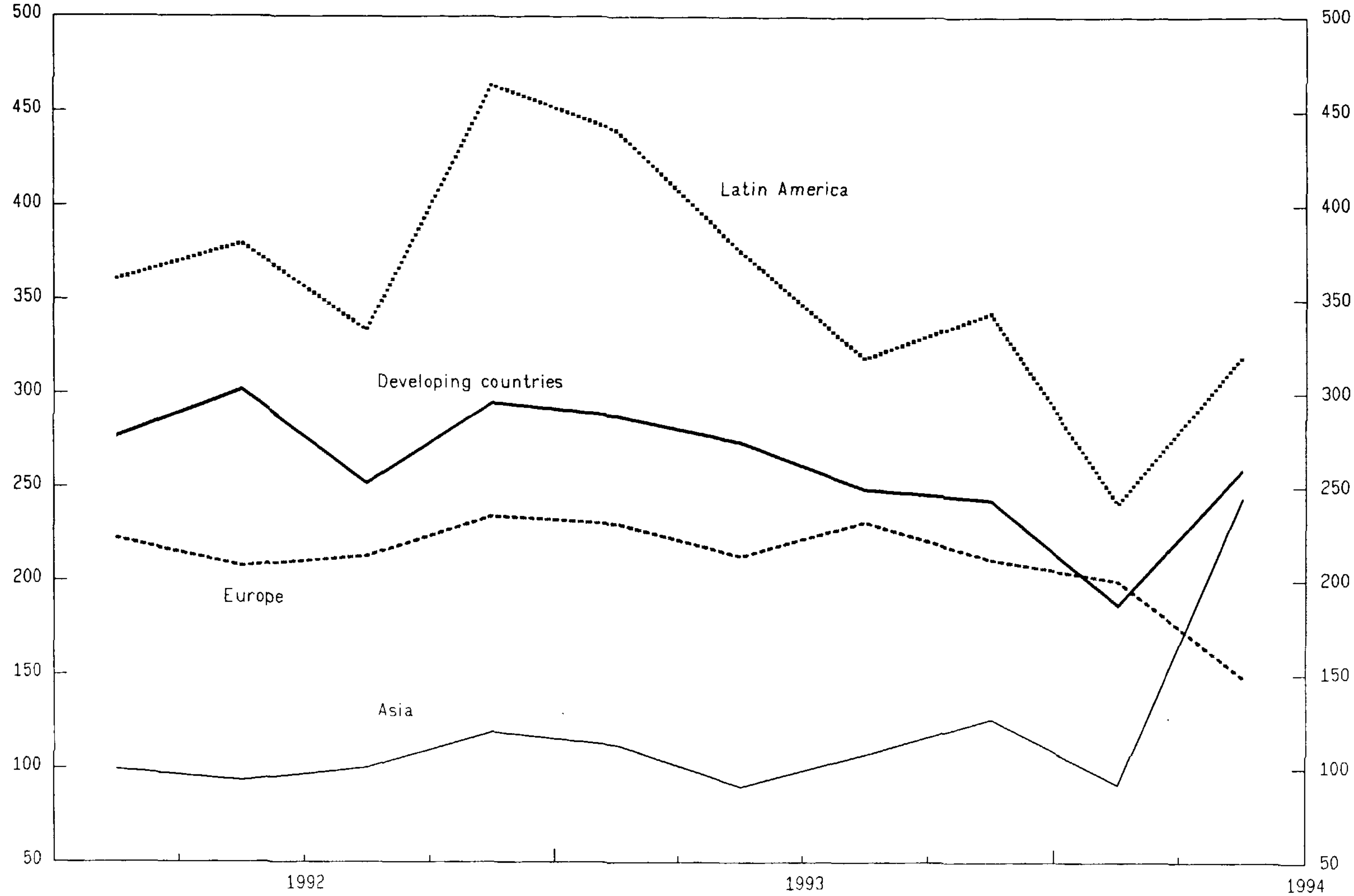
Sources: IMF staff estimates based on Euroweek, Financial Times, International Financing Review, Financial Market Trends, Financial Statistics Monthly, and Organization for Economic Cooperation and Development.

1/ Including note issues under Euro medium-term notes (EMTN) programs.

CHART 4

YIELD SPREADS AT LAUNCH FOR UNENHANCED BOND ISSUES BY DEVELOPING COUNTRIES, 1992-June 1994 1/

(In basis points)



Sources: Internatinal Financing Review; and Financial Times.
1/ Reflect weighted averages.

Table 7. International Bond Issues by Developing Countries and Region by Type of Borrower, 1990-First Half of 1994

(In millions of U.S. dollars)

	1990	1991	1992	1993	First Half 1993	First Half 1994
Sovereign borrowers	1,520	4,189	5,490	16,378	6,502	6,852
Argentina	--	500	425	2,111	256	657
Barbados	--	--	--	--	--	20
Chile	--	200	120	--	--	--
China	--	--	--	582	--	1,823
Colombia	--	--	--	216	125	250
Congo	--	--	--	--	--	--
Czech Republic	--	--	--	697	375	--
Czechoslovakia, former	--	277	--	216	--	--
Hungary	887	1,186	1,242	4,733	1,580	258
Israel	--	400	--	2,002	1,000	1,958
Mexico	40	620	377	352	259	--
Philippines	--	--	--	150	150	--
Slovak Republic	--	--	--	240	--	--
South Africa	--	236	318	--	--	--
Thailand	--	--	300	343	149	189
Trinidad and Tobago	--	--	100	125	--	--
Tunisia	--	--	--	--	--	277
Turkey	593	497	2,508	3,725	2,053	720
Uruguay	--	--	100	100	100	100
Venezuela	--	273	--	1,003	455	--
Other public sector	3,551	3,827	8,054	16,441	7,186	6,185
Algeria	89	--	--	--	--	--
Argentina	--	--	--	350	150	100
Brazil	--	1,341	1,320	1,837	940	350
China	--	115	1,359	2,443	1,157	548
Colombia	--	--	--	250	150	--
Costa Rica	--	--	--	--	--	50
Czech Republic	--	--	--	--	--	250
Czechoslovakia, former	375	--	114	--	--	--
Guatemala	--	--	--	60	--	--
Hong Kong	--	--	--	102	--	--
Hungary	--	--	--	63	63	--
India	273	227	--	--	--	100
Indonesia	80	--	250	--	--	179
Korea	755	705	1,742	3,987	1,340	437
Macao	--	--	--	--	--	155
Malaysia	--	--	--	954	500	600
Mexico	1,851	1,192	1,432	4,401	2,462	3,240
Philippines	--	--	--	615	175	154
Slovak Republic	--	--	--	--	--	21
South Africa	--	--	408	--	--	--
Thailand	--	17	--	250	250	--
Turkey	--	--	572	130	--	--
Venezuela	127	230	857	1,000	--	--
Private sector	1,263	4,823	10,238	26,618	8,538	13,074
Argentina	21	295	1,145	3,772	535	1,610
Bolivia	--	--	--	--	--	10
Brazil	--	496	2,335	4,842	2,022	845
Chile	--	--	--	433	333	---
China	--	--	--	23	--	--
Colombia	--	--	--	100	50	83
Czechoslovakia, former	--	--	--	--	--	--
Hong Kong	66	100	185	5,785	657	1,855
India	--	--	--	546	--	534
Indonesia	--	369	243	485	30	1,270
Korea	350	1,307	1,466	1,877	674	1,415
Malaysia	--	--	--	--	--	365
Mexico	586	1,971	4,292	6,030	3,620	1,457
Pakistan	--	--	--	--	--	45
Panama	--	50	--	--	--	--
Peru	--	--	--	30	--	80
Philippines	--	--	--	528	20	555
Singapore	105	--	--	--	--	86
Taiwan Province of China	--	160	60	79	36	876
Thailand	--	--	312	1,654	392	1,923
Turkey	--	--	111	50	50	65
Uruguay	--	--	--	40	40	--
Venezuela	135	75	75	345	80	--
Total	6,335	12,838	23,780	59,437	22,226	26,111
Memorandum items:						
Share in total issues by developing countries and regions (in percent)						
Sovereign issues	24.0	32.6	23.1	27.6	29.3	26.2
Other public issues	56.1	29.8	33.9	27.7	32.3	23.7
Private sector issues	19.9	37.6	43.1	44.8	38.4	50.1

Sources: IMF staff estimates based on International Financing Review, Euroweek, and Financial Times.

quarter of the year. The overall J.P. Morgan Latin Eurobond Price Index, which rose by 18.4 percent in 1993, declined by 9.3 percent between January-April 1994 before recovering somewhat in May (Chart 5). Yield spreads in the secondary market for developing country bonds followed a similar pattern; notable increases were observed for bonds issued by Argentina, Brazil, Hungary, Mexico, Turkey, and Venezuela (Chart 6). A tightening of market conditions was also reflected in a sharp decline in the secondary market prices for Brady bonds.

Yield spreads continued to vary considerably among countries. While borrowers that had not experienced debt servicing difficulties in the past commanded lower spreads, market re-entrants were typically paying spreads of over 200 basis points in 1993 and in the first half of 1994. The spread for public sector borrowers continued to be below that for private sector borrowers by wide margins (Table 8). Reflecting uncertainties regarding the future path of U.S. interest rates, there was renewed interest in new floating rate issues. In the first half of 1994, floating rate notes accounted for some 20 percent of the total amount of new issues, compared with 8 percent in 1993.

Much of the bond borrowing by developing countries so far has represented net capital inflows. Maturing bonds issued by developing countries amounted to only US$6.3 billion in 1991-93, compared with bond issues totaling US$96 billion. As of end-June 1994, the total outstanding stock of international bonds issued by developing countries is estimated to be US$117.5 billion, 42 percent of which was accounted for by private sector borrowers. Amortization payments on this stock of debt will rise sharply in the next few years from an estimated US$7.1 billion in 1994 to a peak of US$21 billion in 1998, as bullet repayments on bonds placed in the early 1990s fall due (Table 9 and Chart 7). 1/ Payments are particularly concentrated in a few Western Hemisphere and Asian countries.

Although the range of borrowers continued to widen in 1993, bond issuers remained concentrated in a few countries in Latin America, Asia, and Europe. Latin American borrowers accounted for the largest share of total bond issuance by developing countries until they were surpassed by Asian borrowers in the final quarter of 1993. Bond issues by Latin American borrowers doubled to US$27.4 billion in 1993, accounting for 46 percent of total issues by developing countries. However, bond placements by these countries declined to US$8.9 billion (34 percent of the total issues) in the first half of 1994.

Mexico continued to be the leading borrower, raising US$10.8 billion in 1993 and US$4.7 billion in the first half of 1994. An increasing number of companies placed bonds, including several private and public banks. Moreover, a few firms floated quite sizable individual issues during this

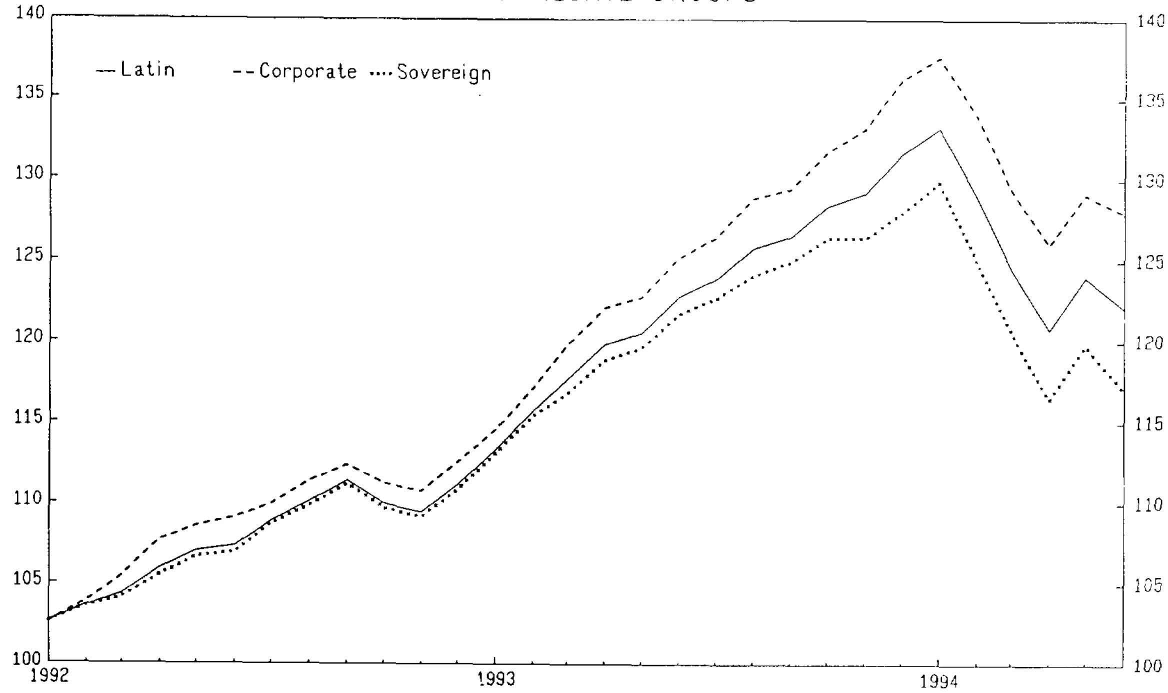
1/ These estimates can vary somewhat depending upon whether bond holders decide to take early redemption options for some bonds.

CHART 5

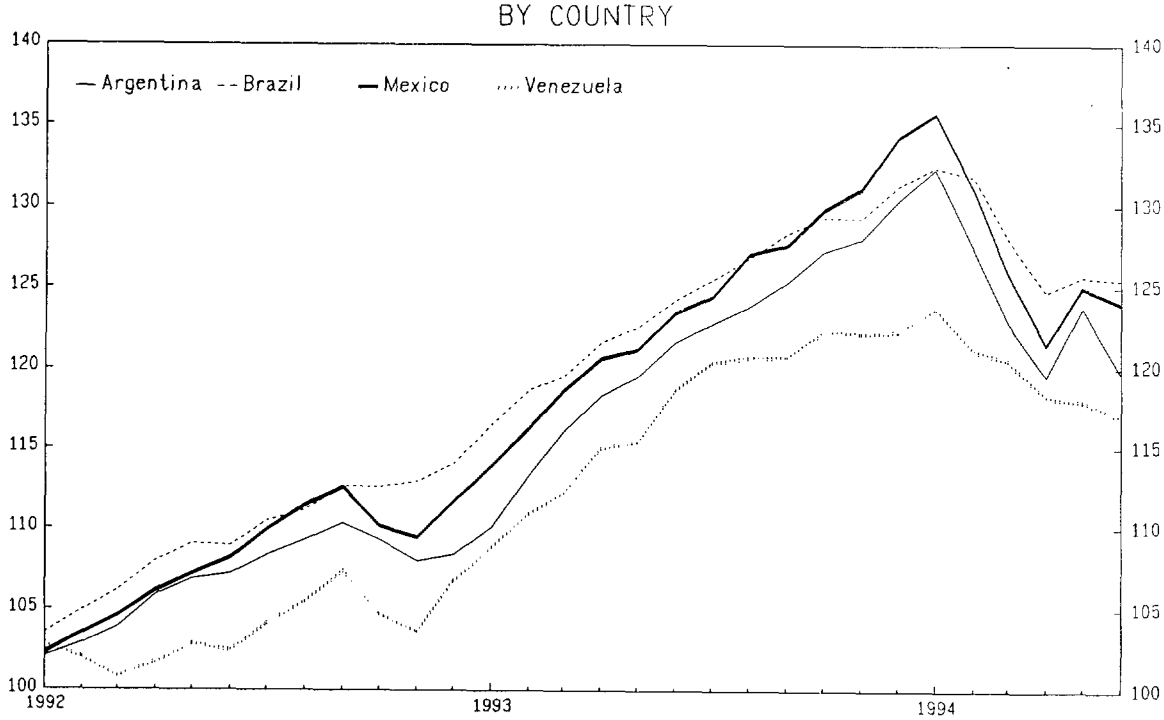
J.P. MORGAN LATIN EUROBOND PRICE INDICES, JANUARY 1992-JUNE 1994

December 1991=100

BY AGGREGATE GROUPS



BY COUNTRY

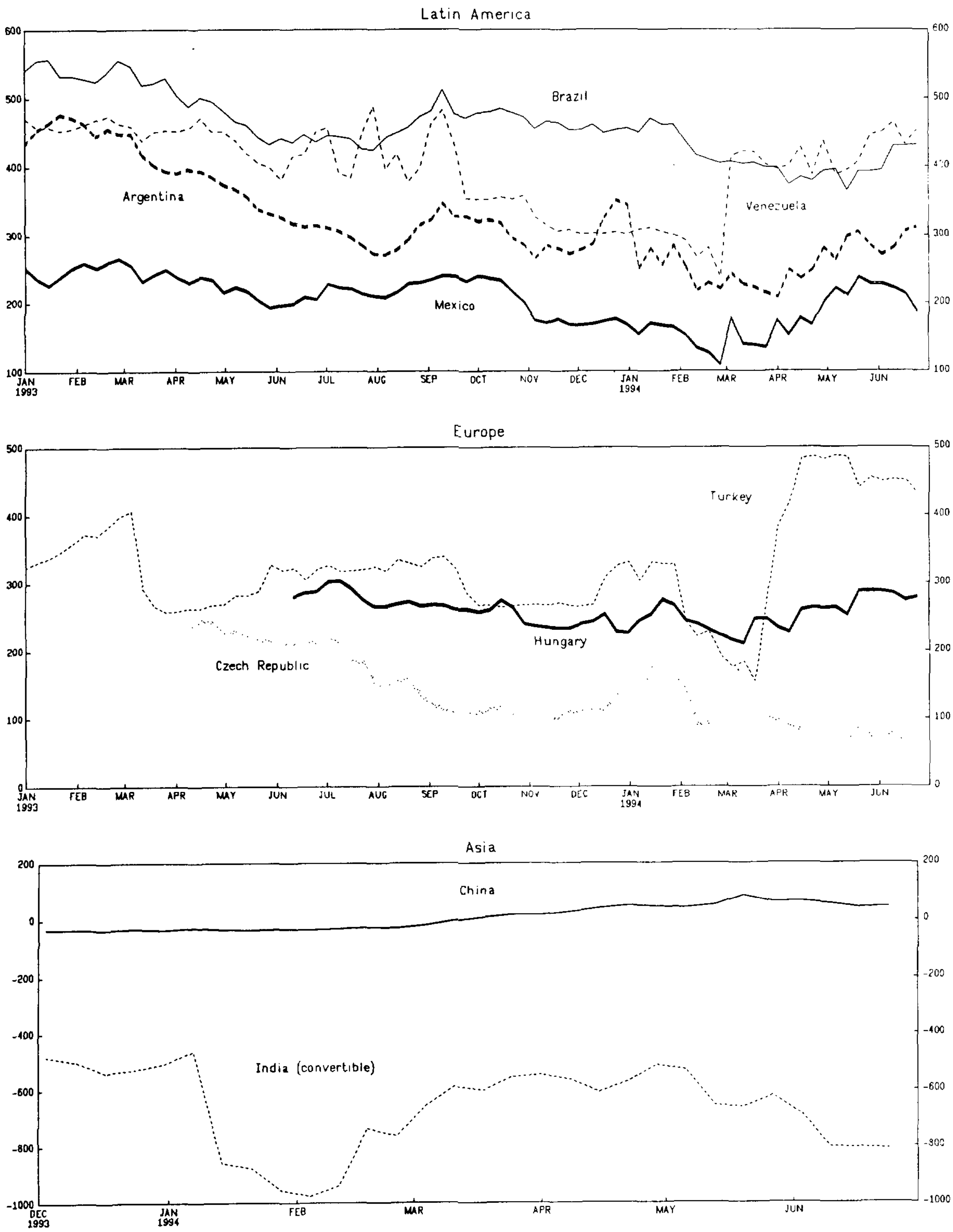


Sources: Reuters, J.P. Morgan, and the Wall Street Journal.

CHART 6

SECONDARY MARKET YIELD SPREADS ON U.S. DOLLAR DENOMINATED BONDS BY SELECTED DEVELOPING COUNTRIES

(In basis points)

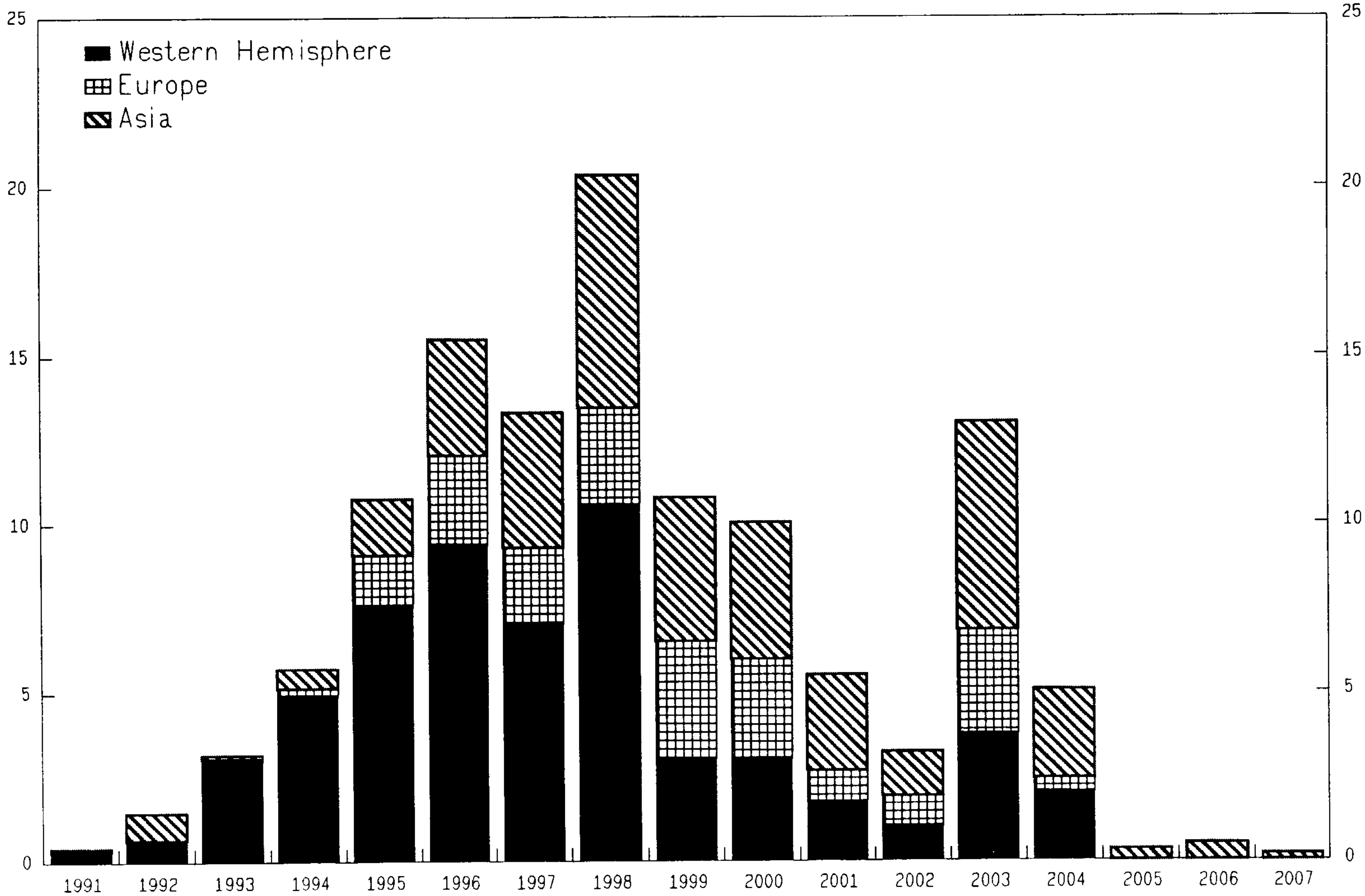


Source: Reuters.

CHART 7

MATURING BONDS OF DEVELOPING COUNTRIES, 1991-2007

(In billions of U.S. dollars)



Sources: International Financial Review, EuroWeek; and staff estimates.

Table 8. Yield Spread at Launch for Unenhanced Bond Issues by Developing Countries and Regions, 1990-Second Quarter 1994 1/

(In basis points)

					1993				1994	
	1990	1991	1992	1993	I	II	III	IV	I	II
Sovereign borrower	151	261	222	230	236	248	223	223	134	180
Argentina	--	456	294	269	--	--	255	280	120	220
Barbados	--	--	--	--	--	--	--	--	--	450
Chile	--	150	150	--	--	--	--	--	--	--
China	--	--	--	88	--	--	89	88	94	98
Colombia	--	--	--	178	--	215	--	126	148	--
Czech Republic	--	--	--	230	270	--	184	--	--	--
Czechoslovakia	--	281	--	--	--	--	--	--	--	--
Hungary	133	249	240	235	240	255	223	238	200	226
Mexico	--	201	215	189	208	--	149	--	--	--
Philippines	--	--	--	320	320	--	--	--	--	--
Slovak Republic	--	--	--	344	--	--	344	--	--	--
South Africa	--	190	198	--	--	--	--	--	--	--
Thailand	--	--	100	67	57	--	74	--	54	--
Trinidad and Tobago	--	--	565	480	--	--	--	480	--	--
Tunisia	--	--	--	--	--	--	--	--	221	--
Turkey	166	234	207	193	205	196	221	179	196	--
Uruguay	--	--	275	228	--	228	--	--	158	--
Venezuela	--	230	--	355	482	428	284	245	--	--
Other public sector	250	373	232	179	199	187	200	148	177	162
Algeria	100	--	--	--	--	--	--	--	--	--
Argentina	--	--	--	440	440	--	--	--	--	333
Brazil	--	540	446	465	518	528	390	413	407	--
China	--	--	110	82	57	64	98	108	--	145
Colombia	--	--	--	217	--	218	--	215	--	--
Costa Rica	--	--	--	--	--	--	--	--	395	--
Czech Republic	--	--	--	--	--	--	--	--	--	120
Czechoslovakia, former	96	--	--	--	--	--	--	--	--	--
Guatemala	--	--	--	605	--	--	605	--	--	--
Hungary	--	--	--	324	--	324	--	--	--	--
India	127	140	--	--	--	--	--	--	--	--
Indonesia	--	--	129	--	--	--	--	--	158	--
Korea	--	--	89	83	82	86	89	81	67	--
Malaysia	--	--	--	96	--	100	--	91	--	--
Mexico	366	247	205	192	190	182	213	187	154	126
Philippines	--	--	--	250	--	310	265	217	178	250
Slovak Republic	--	--	--	--	--	--	--	--	325	--
South Africa	--	--	159	--	--	--	--	--	--	--
Thailand	--	--	--	40	43	38	--	--	--	--
Turkey	--	--	242	205	--	--	--	205	--	--
Venezuela	260	275	263	212	--	--	212	--	--	--
Private sector	650	493	376	348	424	370	339	315	256	337
Argentina	730	447	419	397	623	533	371	371	310	411
Bolivia	--	--	--	--	--	--	--	--	428	--
Brazil	--	530	516	505	642	563	473	425	386	465
Chile	--	--	--	194	--	210	--	170		
Colombia	--	--	--	310	--	320	300	--	--	641
Czechoslovakia, former	--	--	300	--	--	--	--	--	--	--
Hong Kong	--	--	180	118	133	--	83	126	--	115
India	--	--	--	110	--	--	110	--	--	--
Indonesia	--	--	--	410	500	--	--	405	--	467
Korea	--	--	116	87	86	76	90	92	68	69
Mexico	613	533	377	358	413	347	365	331	253	430
Panama	--	24	--	--	--	--	--	--	--	--
Peru	--	--	--	706	--	--	--	706	680	--
Philippines	--	--	--	375	--	--	375	--	--	340
Thailand	--	--	43	60	--	58	--	75	127	94
Turkey	--	--	250	--	250	--	--	--	--	--
Uruguay	--	--	--	300	--	--	--	--	--	--
Venezuela	693	362	375	469	--	450	516	468	--	--
Total	245	346	282	259	288	274	249	243	187	259

Sources: IMF staff estimates based on International Financing Review, Euroweek, and Financial Times.
1/ Yield spread measured as the difference between the bond yield at issue and the prevailing yield for industrial country government bonds in the same currency and of comparable maturity. All figures are weighted averages.

Table 9. Maturing Bonds of Developing Countries by Region, 1993-2007

(In millions of U.S. dollars)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005-2007
Africa	--	159	89	236	602	--	123	--	--	--	--	877	--
Asia	123	578	1,674	3,451	4,021	6,887	4,267	4,064	2,845	1,325	6,192	2,629	1,021
Of which:													
China	--	--	249	398	808	1,658	915	198	143	--	820	1,000	--
Hong Kong	--	--	259	710	80	1,893	227	2,194	908	50	1,150	--	--
Korea	80	378	947	1,535	1,447	2,219	1,517	818	155	750	1,550	364	786
Thailand	--	--	--	79	405	574	479	149	519	340	1,322	935	--
Europe	66	200	1,490	2,629	2,236	2,875	3,458	2,916	903	875	3,062	402	--
Of which:													
Hungary	--	--	318	1,138	355	1,097	1,837	1,399	300	443	1,974	--	--
Turkey	66	--	782	1,015	1,783	1,658	1,371	1,075	602	432	1,089	288	--
Middle East	879	1,160	--	160	--	352	122	340	--	--	--	117	--
Western Hemisphere	2,995	4,947	7,568	9,421	7,060	10,590	3,062	3,058	1,760	1,035	3,756	2,035	--
Of which:													
Argentina	812	435	1,082	1,730	885	2,100	425	960	--	--	1,450	350	--
Brazil	1,026	2,381	3,037	2,559	820	1,566	157	100	590	350	400	--	--
Mexico	1,122	1,986	2,555	3,451	4,523	5,753	2,355	1,437	1,070	485	1,123	1,435	--
Total	4,063	7,045	10,841	15,897	13,919	20,704	11,032	10,378	5,508	3,235	13,282	6,060	1,021

Sources: International Financial Review; Euroweek; and IMF staff estimates.

period, including US$1 billion issues by Cemex (Mexico's largest cement producer) in May 1993 and Bancomext in January 1994. Mexican entities also opened up new currency sectors, with the United States of Mexico launching Latin America's first Samurai issue since the debt crisis, Banamex issuing a Mexican peso-denominated Eurobond, and Nafinsa (a Mexican development bank) placing a Dragon bond, marking the first time that a Latin American noninvestment grade borrower has been able to issue in that market.

Argentinean borrowers quadrupled their bond issues to US$6.2 billion in 1993 and raised US$2.4 billion in the first half of 1994. There were a number of new developments. A US$1 billion global sovereign bond was issued in December 1993 at a spread of 280 basis points, the first ever global bond issued by a developing country borrower, 1/ and the first significant convertible bond by a private telephone company was placed in March 1994. Brazil increased its bond issuance significantly in 1993, notwithstanding continued uncertainty about the course of economic policies. All these bonds were issued by non-sovereign borrowers and included the first Euro-yen issue by a Latin American entity at a spread of 416 basis points. Venezuelan entities also increased their recourse to the international bond market in 1993, including a US$1 billion bond issue at a spread of 210-218 basis points by PDV America (a state oil company) and the first intra-regional bond which was issued simultaneously in Colombia and Luxembourg. However, Venezuela has not placed bonds internationally in the first half of 1994, reflecting investors' concern regarding its economic situation.

The range of Latin American borrowers in the international bond market continued to broaden in 1993 and the first half of 1994. Colombia, Guatemala, and Peru, and more recently Barbados, Bolivia, and Costa Rica, tapped the market for the first time in many years, with the spreads at launch ranging from 215 basis points for Colombia to over 700 basis points for Peru. At the same time, recent market re-entrants such as Chile, Trinidad and Tobago, and Uruguay maintained their presence in the market.

Asian borrowers tripled their international bond issues to US$20.4 billion in 1993 and raised US$13 billion through this channel in the first half of 1994, despite the turbulence in the market. Their share in the total bond issues by developing countries rose from 34 percent in 1993 to 50 percent in the first half of 1994. The stock market booms in the region in 1993 led to a significant increase in convertible bond issues, with the share of these bonds in total issues rising from 18 percent in 1992 to 30 percent in 1993. Hong Kong emerged as the leading borrower in Asia, followed by Korea; together these two countries accounted for more than half

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1/ Global bonds are issued simultaneously in several major international markets and allow issuers to tap into broader demand and thus obtain lower rates than issuing bonds in a single market. Some market participants estimated that Argentina was able to reduce the interest rate on the funds raised through the global issue by as much as 20 to 30 basis points.

of the 1993 bonds placed by Asian entities. The People's Republic of China also significantly increased its recourse to the international bond market, as enterprises were allowed to have more direct access. To facilitate enterprises' market entry, the Government entered the market directly in 1993, after a six-year absence, and placed three issues intended to establish a benchmark for China risk. In February 1994, the Government issued a 10-year US$1 billion global bond, which was priced at an 85 basis point spread, and predominantly purchased by U.S. investors. In 1993, India, Malaysia, and the Philippines tapped the international bond market for the first time in several years. In May 1994, the Indian authorities restricted convertible bond issues except for companies using the proceeds to restructure existing external debt, owing to their concerns over India's debt profile. In the first half of 1994, Pakistan also returned to the market and Macao issued its first international bond.

European developing countries continued to step up their recourse to the international bond market in 1993, raising US$9.6 billion. In the first half of 1994, however, their bond issuance activity plummeted largely reflecting reduced placements by Hungary and Turkey. With increasing market concerns regarding economic conditions in these two countries, bond issues by Hungary and Turkey were less than US$0.3 billion and US$0.8 billion, respectively, in the first half of 1994, compared with US$4.8 billion and US$3.9 billion in 1993. The Czech Republic and the Slovak Republic maintained access to the market in the first half of 1994.

In the rest of the developing world, only a handful of borrowers have tapped the international bond market. Israel raised US$2 billion in 1993 and another US$2 billion in the first half of 1994 on exceptionally favorable terms through the issuance of bonds guaranteed by the U.S. Agency for International Development. In Africa, the Republic of Congo launched a US$600 million 10-year bond; interest payments on these bonds are secured by oil receivables and principal is collateralized by U.S. Treasury bonds. Also, the Central Bank of Tunisia issued the first Samurai bond by an African country at a spread of 221 basis points above the yield of a risk-free yen bond of comparable maturity.

Among developing country bond issuers, private sector borrowers scaled back their international issuance activity in the first half of 1994, following more than a doubling of issues in 1993. As a result, their share in total bonds issued by developing country borrowers declined from 45 percent in 1993 to 26 percent in the first half of 1994. The lower issuance activity was partly due to a sharp contraction in convertible bond issues by entities in Hong Kong, which were adversely affected by a decline in stock prices. Bond issues by sovereign borrowers, which tripled in 1993, declined in the first half of 1994, but their share in total bond issues rose to 50 percent, compared with 27 percent in 1993. Lower issuance by sovereign borrowers was mainly accounted for by Hungary and Turkey.

Most bonds issued by developing countries continued to be denominated in U.S. dollars, yen, and deutsche mark. Bond issues in U.S. dollars accounted for 74 percent of the total in 1993 and 81 percent in the first half of 1994 (Table 10). The high share of bonds denominated in U.S. dollars partly reflected U.S. investors' greater appetite for high-yielding sub-investment grade securities and relatively low U.S. interest rates. The Rule 144a, which exempted SEC disclosure requirements for private placements and permits qualified institutional buyers to trade privately placed securities without waiting the stipulated two-year holding period, has also facilitated bond issues in the U.S. market. Several borrowers in Hungary, Korea, and Mexico tapped the Yankee bond market 1/ in 1993 for the first time. While the yen sector remained the second largest currency sector for bonds issued by developing country borrowers, its share declined from 13 percent in 1993 to 10 percent in the first half of 1994. Bond issues in deutsche mark, principally by European and Latin American borrowers, were subdued in 1993 and in the first half of 1994.

Following the turbulence in the international bond market in early 1994, developing country borrowers increased the use of credit enhancement techniques, such as bond-equity conversion options, collateralization, and put options (Table 11). The most widely used enhancement technique is bond-equity conversion options, especially in Asia where borrowers shifted to convertible bonds, which accounted for more than half of bond issues in the first half of 1994. Put options are the second most widely used technique. Latin American issuers, are the principal users, possibly reflecting greater uncertainties regarding economic prospects in the region.

The expansion of the investor base was accompanied by an increase in the number of countries assigned credit ratings by major rating agencies (Table 12). The performance of some countries also led to revisions in their ratings. During 1993 and the first half of 1994, Argentina, the Philippines, Trinidad and Tobago, the Slovak Republic, and Uruguay received initial sub-investment grade ratings from the major U.S. credit rating agencies. Initial investment grade ratings were assigned to Colombia and Taiwan Province of China. In addition, Chile received an investment grade rating from Moody's in February 1994, making it the only Latin American country to have received such a rating by two major U.S. rating agencies. In March 1993, the Czech Republic became the only developing country in Europe with an investment grade rating, and this rating subsequently was upgraded in May 1994. Other investment grade countries receiving upgraded ratings during 1993 and the first half of 1994 include Chile, China, Israel, Malaysia, and Singapore. Owing to deteriorating economic conditions, Turkey was downgraded to a sub-investment grade rating in January 1994, and its rating was reduced further during March-May 1994. The major rating agencies also downgraded Venezuela in March and April 1994.

1/ The Yankee bond market is the domestic U.S. market for foreign U.S. dollar bonds. Yankee issues are subject to U.S. Securities and Exchange Commission registration and disclosure requirements.

Table 10. International Bond Issues by Developing Countries by Currency of Denomination, 1990-First Half of 1994

(In millions of U.S. dollars)

	1990	1991	1992	1993	First Half 1993	First Half 1994
U.S. dollar	3,890	8,755	16,991	44,192	16,796	21,207
African borrowers	--	--	--	--	--	600
Asian borrowers	960	1,683	4,143	16,700	4,301	9,943
European borrowers	550	300	1,014	1,395	575	336
Latin American borrowers	2,380	6,372	11,834	24,095	10,920	8,370
Middle Eastern borrowers	--	400	--	2,002	1,000	1,958
Deutsche mark	1,693	1,618	2,013	4,521	1,699	688
African borrowers	89	236	408	--	--	--
Asian borrowers	283	96	125	--	--	206
European borrowers	983	961	1,063	3,285	1,370	--
Latin American borrowers	337	326	417	1,236	329	482
Yen	450	1,458	3,554	7,965	3,118	2,692
African borrowers	--	--	--	--	--	277
Asian borrowers	259	1,001	1,306	3,099	1,009	1,694
European borrowers	190	457	2,247	4,078	2,108	720
Latin American borrowers	--	--	--	787	--	--
ECU	127	423	630	--	--	--
African borrowers	--	--	630	--	--	--
Asian borrowers	127	--	--	--	--	--
European borrowers	--	242	186	--	--	--
Latin American borrowers	--	181	126	--	--	--
Other currencies	175	585	593	2,759	614	1,524
Asian borrowers	127	--	--	--	220	1,266
European borrowers	--	242	186	--	67	258
Latin American borrowers	--	181	126	--	328	--
Total	6,335	12,838	23,780	59,437	22,226	26,111
Memorandum items:						
Share in total issues by developing countries						
U.S. dollars	61%	68%	71%	74%	75%	81%
DM	27%	13%	8%	8%	8%	3%
Yen	7%	11%	15%	13%	14%	10%
ECU	2%	3%	3%	3%	--%	--%
Other	3%	5%	2%	5%	3%	6%
Share in total issues in global bond market						
U.S. dollars	32%	30%	39%	36%	35%	37%
DM	8%	7%	11%	13%	13%	7%
Yen	14%	14%	13%	12%	12%	13%
ECU	9%	11%	7%	11%	1%	2%
Other	38%	40%	34%	38%	40%	41%

Sources: IMF staff estimates based on International Financing Review, Euroweek, and Financial Times.

Table 11. Enhancement of International Bond Issues by Developing Countries by Regions, 1990-First Half of 1994

(Number of issues featuring enhancements in percent of total issues by region)

	1990	1991	1992	1993	First Half 1993	First Half 1994
Africa	--	--	--	--	--	50
Secured	--	--	--	--	--	50
Asia	18	56	38	48	36	65
Convertible	18	56	25	41	23	56
Put option	--	4	25	20	23	34
Warrant	--	--	6	1	--	--
Europe	7	--	14	3	7	13
Guaranteed	7	--	--	--	--	--
Secured	--	--	5	3	7	13
Put option	--	--	9	--	--	--
Middle East	--	100	--	100	100	100
Guaranteed	--	100	--	100	100	100
Western Hemisphere	41	22	18	12	12	16
Convertible	3	--	1	1	2	8
Guaranteed	--	--	1	--	--	--
Secured	28	8	10	4	4	3
Put option	13	14	8	7	6	5
Warrant	--	--	--	1	1	--
All developing countries	27	33	22	25	20	48
Convertible	6	20	7	14	7	36
Guaranteed	2	1	1	2	3	3
Secured	14	4	7	3	3	3
Put option	6	9	12	11	10	22
Warrant	--	--	1	1	1	--
Memorandum items:						
Amount raised through enhanced instruments (in percent of total)						
All developing countries	31	31	20	21	16	43
Africa	--	--	--	--	--	68
Asia	7	39	18	35	19	50
Europe	11	--	8	1	1	5
Middle East	--	100	--	100	100	100
Western Hemisphere	59	34	26	12	13	23

Sources: IMF staff estimates based on International Financing Review, Euroweek, and Financial Times.

1/ Totals by region may be smaller than the sum of their components because some issues feature multiple enhancements.

Table 12. Credit Ratings of Developing Country Borrowers 1/

	Moody's Rating	S&P Rating	Recent Changes
Singapore	Aa2	AA+	Moody's upgraded rating from Aa3 in May 1994.
Taiwan	Aa3	AA+	Moody's assigned an Aa3 rating in March 1994.
Korea	A1	A+	
Thailand	A2	A-	
Malaysia	A2	A	Moody's upgraded rating from A3 in March 1993.
Hong Kong	A3	A	
China	A3	BBB	S&P assigned its BBB rating in February 1992, while Moody's assigned its rating A3 in September 1993.
Chile	Baa2	BBB+	Moody's assigned a Baa2 first-time investment rating in February 1994. S&P upgraded from BBB in December 1993.
Israel	NR	BBB+	Standard & Poor's (S&P's) upgraded sovereign rating from BBB in September 1993.
Indonesia	Baa3	BBB-	S&P's assigned first-time rating in July 1992.
Czech Republic	Baa2	NR	Moody's upgraded rating from Baa3 in May 1994.
Colombia	Ba1	BBB-	S&P's and Moody's assigned first-time ratings in July and August 1993,respectively.
Hungary	Ba1	BB+	
Turkey	Ba3	B+	S&P's and Moody's downgraded the ratings below investment grade in January 1994 and March 1994, respectively, and downgraded several more times thereafter.
Uruguay	Ba1	BB+	Moody's S&P's assigned ratings in October 1993 and February 1994, respectively.
India	Ba2	BB+	
Trinidad and Tobago	Ba2	NR	Moody's assigned first-time rating in February 1993.
Venezuela	Ba2	BB-	S&P's downgraded its rating in March 1994, while Moody's downgraded its ratings in April 1994.
(Conversion bonds)	Ba2	NR	
(Par and discount bonds)	Ba3	NR	
Mexico	Ba2	BB+	S&P's assigned first-time rating in July 1992.
(Par and discount bonds)	Ba3	BB+	
Slovak Republic		BB-	S&P assigned its first-time rating in February 1994.
Philippines	Ba3	BB-	First-time ratings assigned in July 1993.
Argentina	B1	BB-	S&P's assigned first-time rating in August 1993.
(Par discounts and bonds)		B2	
Brazil	B2	NR	

Sources: Financial Times; International Financing Review; and Solomon Brothers.

1/ Ranked in descending order according to rating. Ratings by Standard and Poor's and Moody's Investor Service. The ratings are ranked from highest to lowest as follows:

	Moody's	S&P's
Investment grade	Aaa, Aa, A, Baa	AAA, AA+, AA, AA-, A+, A, A-, BBB+, BBB, BBB-
Noninvestment grade	Ba, B	BB+, BB, BB-, B+, B, B-
Default grade	Caa, Ca, C, D	CCC+, CCC, CCC-, CC, C

In addition, numbers from 1 (highest) to 3 are often attached to differentiate borrowers within a given

2. Bond pricing

The rapid increase in the prices of developing country bonds during 1993 raises some questions as to whether the markets were adequately pricing the risk of these securities. Moreover, the markets have at times appeared to react slowly to changes in economic conditions in a country. 1/ In pricing bonds, the markets reportedly use two basic approaches. Risk may be priced on a relative basis, with bond yields being set based on how risky a bond issue is relative to some benchmark issue or relative to the securities of other issuers judged by the market to be of roughly comparable risk. Alternatively, market participants may attempt to directly assess risk using a scoring system based on a set of economic and political factors. Such scoring systems may vary widely in terms of their level of quantification, the factors considered, and the relative importance of these factors over time; all involve a potentially high degree of judgment.

It is suggested that Mexican bonds are frequently used as a benchmark. Mexico is generally viewed in the market as one of the best credit risks among those developing countries (especially among those in Latin America) that previously rescheduled debts to private foreign creditors. To test this proposition, Granger causality tests were run on daily bond prices for sovereign issues of Argentina, Brazil, Hungary, Nigeria, the Philippines, Turkey, and Venezuela, using the price of the Mexican par bond as the benchmark for Brady bonds and the price of a Mexican new issue as the benchmark for Eurobonds. The results suggest that movements in the price of the Mexican par bond precede (or "Granger cause") price movements in the par bonds of Argentina, Brazil, and the Philippines (Appendix Table 4). The price movements of the Mexican par did not precede movements in either the prices of the Venezuelan or Nigerian par; this result could reflect country-specific factors that may have dominated price movements in these securities over the period. 2/ The price movements in the Mexican Eurobond were found to precede changes in the prices of most of the Eurobonds issued by the other countries sampled (Appendix Table 5).

The pricing of a bond should follow that of other bonds that are considered by the market as being roughly comparable in riskiness. Prices on U.S. corporate bonds with the same credit rating from a major credit rating agency as a bond issue from a developing country sovereign can provide some possible indication of how the markets price developing country bonds. Deviations in the pricing of the two types of bonds, however, represent either mispricing of the riskiness of developing country bonds or the market's perception that these securities are riskier than their U.S.

1/ Simple autoregression tests of market efficiency were run on the prices of U.S. dollar-denominated sovereign bonds of Argentina, Brazil, Hungary, Mexico, Nigeria, the Philippines, Turkey, and Venezuela. In all cases, these tests suggest that the markets are inefficient.

2/ In both countries, there was substantial deterioration in economic conditions and some political instability.

corporate counterparts. Mexican and Philippine par bond prices and Hungarian and Turkish Eurobond prices appear to roughly track the prices of comparably rated U.S. corporate bonds, although prices for the latter two bonds are more volatile than those of the U.S. bonds (Chart 8). 1/ Argentina appears to have undergone a sharp reappraisal of its creditworthiness in late 1992, and its yield steadily approached that of the comparable U.S. corporates, until early 1994. In the case of Venezuela, the market's perception of its creditworthiness may have adjusted much faster than the country's credit rating. The markets would appear to have already incorporated another downgrading into their pricing of Venezuelan bonds, even though the major credit rating agencies have placed it only on a credit watch for a further downgrade. The market would appear to consider the unrated Brazilian and Nigerian par bonds as being rated below Caa.

The scoring systems used by market participants attempt to directly and more systematically consider country-specific factors in pricing developing country bonds. Countries are ranked on the basis of a number of political and economic variables, and these rankings are used in assessing the spread between the yield on a developing country bond and that on a "risk-free" bond. Factors often considered include: (i) political conditions (e.g., the government's commitment to economic reform, its ability to implement policies, popular support); (ii) macroeconomic conditions (especially inflation, growth prospects, and fiscal policy); (iii) structural reform; and (iv) the country's balance of payments position and prospects.

Over the period 1989-94, the data appear to support the view that the market applies an ordinal ranking of developing country sovereign bonds in line with their economic fundamentals (Chart 9). 2/ Among the Latin American Brady par bonds, Mexico carries the lowest spread, followed by Argentina, Venezuela, and Brazil. The markets considered Venezuela a better

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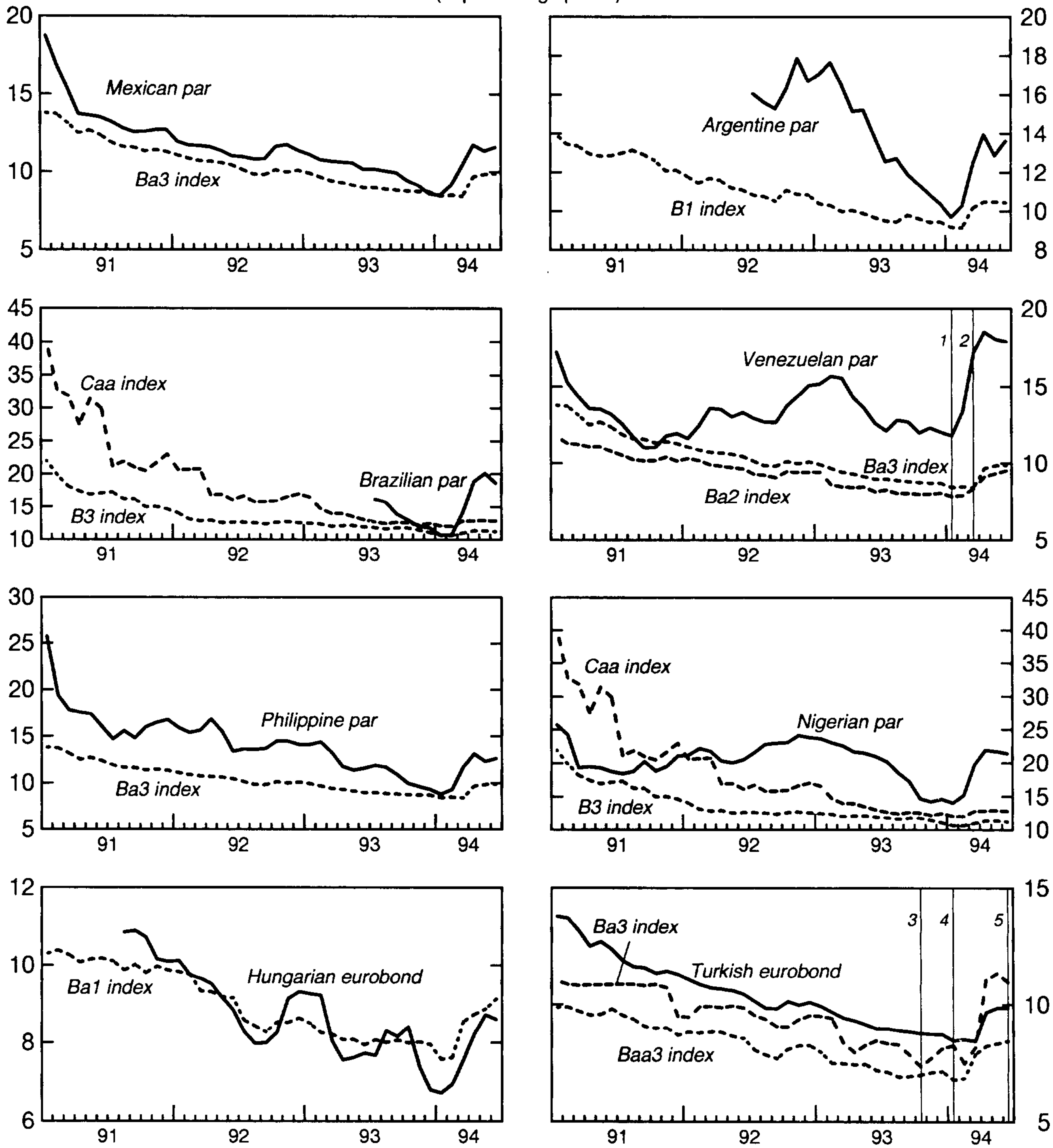
1/ Since monthly price indices for subinvestment grade U.S. corporates comprise only bonds with seven-year maturities, the analysis was conducted using Brady par bonds for the countries that have issued these securities. These bonds have remaining maturities of 25 years or more. A relatively constant differential between the prices of Brady bonds and U.S. corporate securities would largely represent a yield curve effect arising from the difference in the maturities of these two sets of bonds. For the Eurobonds analyzed, an adjustment had to be made to the prices of the developing sovereign bonds to factor in the effect of a declining yield curve as these securities moved closer to maturity.

2/ Cline (Institute for International Economics, unpublished manuscript, 1994) found on the basis of pooled cross section data that countries which have previously restructured bank debt and those with higher inflation and lower export or per capita GDP growth tend to have higher spreads. Preliminary regression analysis relating movements over time of country bond spreads to various indicators of economic fundamentals did not produce significant results, in part owing to the limited time period for which data are available.

CHART 8

COMPARISON OF YIELDS OF SOVEREIGN BONDS TO YIELDS ON U.S. CORPORATE BONDS

(In percentage points)

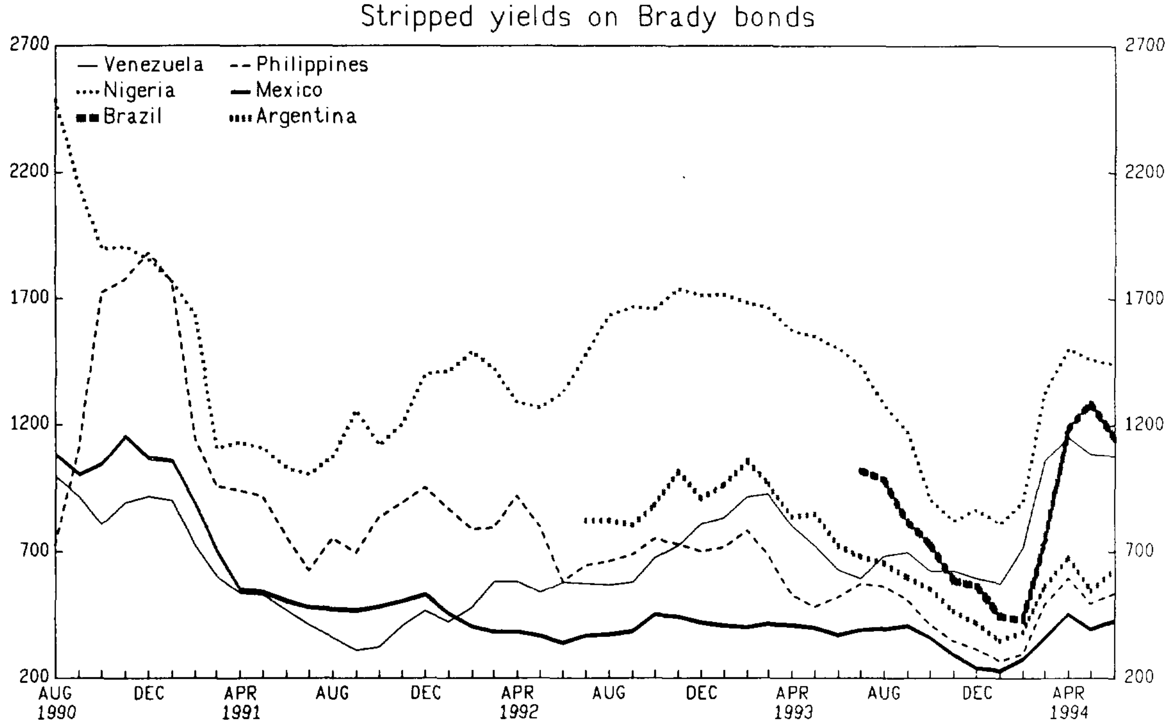


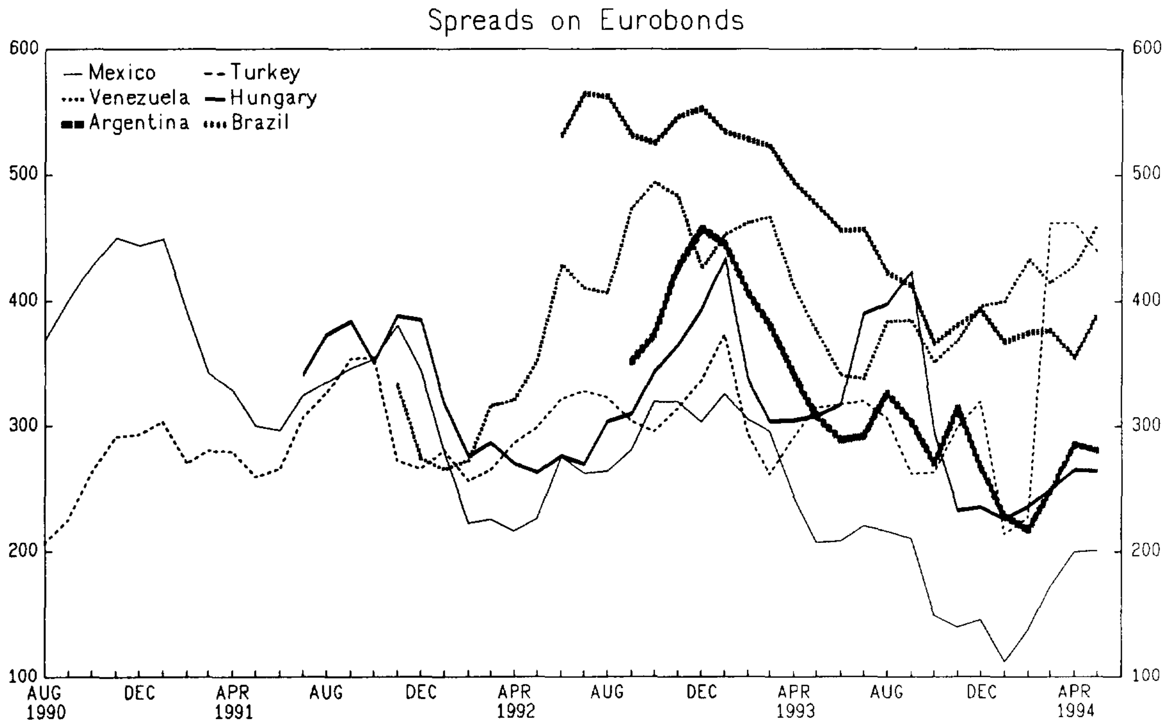
Sources: Moody's, Reuters; and Salomon Brothers.
[1]Venezuela placed on watch list by Moody's.
[2]Venezuela downgraded by Moody's to Ba3.
[3]Turkey placed on watch list.
[4]Turkey downgraded by Moody's to Ba1.
[5]Turkey downgraded by Moody's to Ba3.

CHART 9

COMPARISON OF SOVEREIGN BOND SPREADS, August 1990-June 1994

(In basis points)





Sources: Reuters, Salomon Brothers; and staff estimates.

risk than Mexico prior to 1991, but since then Venezuela's spread has increased, approaching that of Brazil. In contrast, the premium above Mexico paid by Argentina has declined steadily over time. The Philippines has paid a spread higher than Mexico, and Nigeria's spread has been above that of the Philippines. Over time though, the Philippine's premium over Mexico has narrowed, while Nigeria's spread has widened, reflecting differences in the relative economic performance of these two countries. The data from representative Eurobond issues present a more or less similar story, taking into account the different duration and liquidity characteristics of the bonds. 1/

The movement in the secondary market spreads over time suggests a rough relationship with a country's rate of inflation and its level of foreign assets, perhaps because of the frequency of the availability of this information. For example, a very simple examination of the data reveals that the steady downward trend in the spread on Mexican bonds appears to have coincided with a period of declining inflation and rising foreign assets (Chart 10). The recent widening of the spread on Venezuela's bonds roughly coincided with a drop in net foreign assets and lagged a deterioration in inflation performance. The spread on Turkish bonds fell to less than 200 basis points by February 1994, before rising precipitously in March 1994; this turnaround took place five months after gross official reserves began to fall but roughly coincided with a reported surge in inflation (Chart 11). In the case of Hungary, the bond spread fell by roughly 200 basis points between September and December 1993 and then began to increase in early 1994, as foreign reserve assets declined and inflation turned up. This cursory review of the data would suggest that the market responds to a turnaround in economic performance when it becomes evident.

3. Equities

In contrast to bonds, the growth of equity placements in the international capital market moderated in 1993, after expanding seven-fold during 1990-92 (Table 13). Issuance activity did pick up, however, in the final quarter of 1993, reflecting buoyant stock markets in Asia and Latin America. International equity placements by developing countries increased by 28 percent to US$11.9 billion in 1993, but their share in total international equity placements declined from 41 percent in 1992 to 23 percent. In the first half of 1994, equity issues declined only moderately to US$6.9 million from US$7.7 billion in the second half of 1993. The lower equity issuance activity was accompanied by a decline in share prices in major developing country stock markets.

1/ A notable exception is the Venezuelan Eurobond. The lack of response in the yield spread for this bond to the deterioration in the country's recent economic performance may reflect the fact that the issuer of the bond is the state-owned oil company which may be considered a better credit risk because of its external assets.

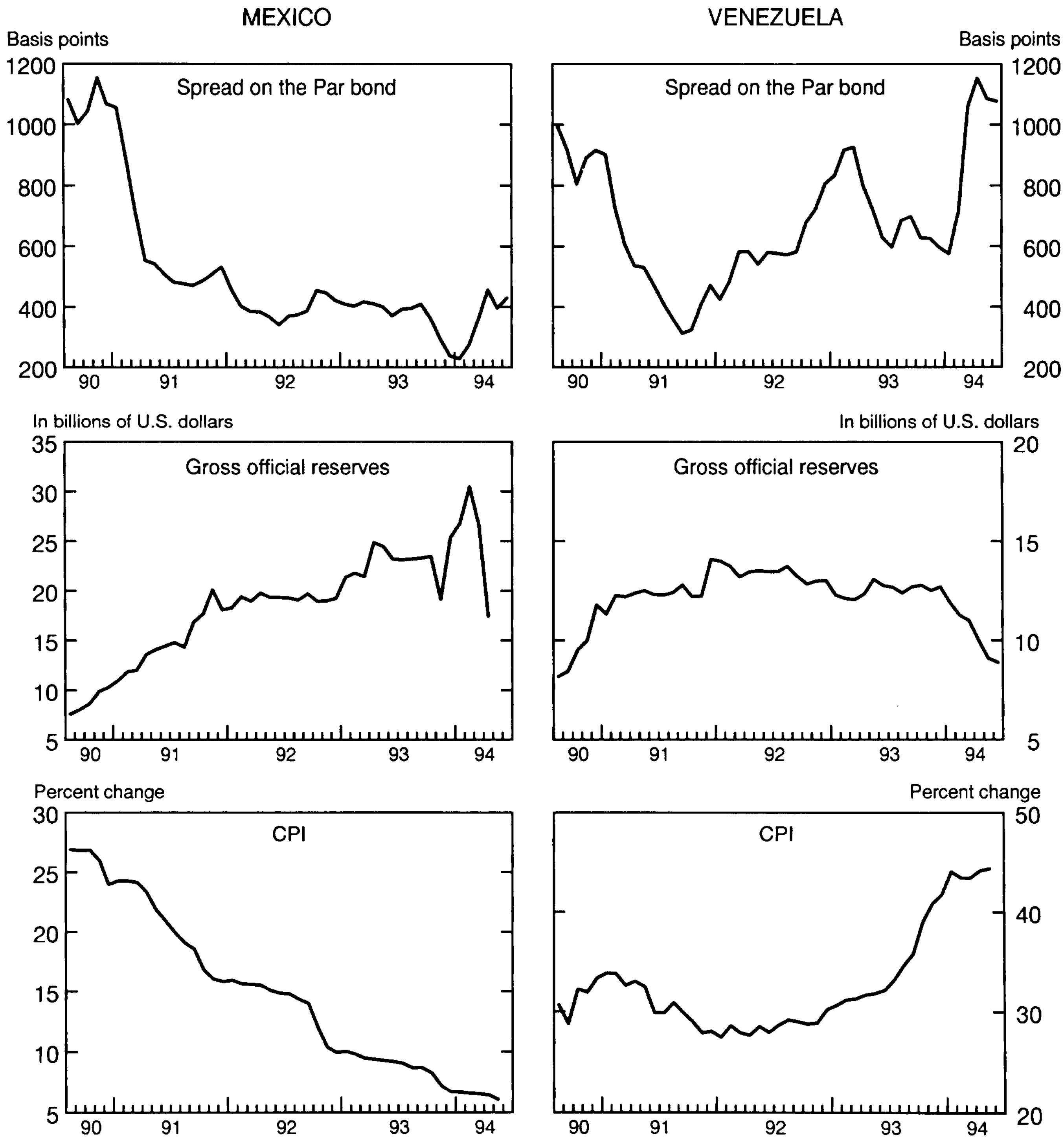
Table 13. International Equity Issues by Developing Countries and Regions, 1991-Second Quarter 1994

(In millions of U.S. dollars)

	1991	1992	1993	1993 I	1993 II	1993 III	1993 IV	1994 I	1994 II
Developing countries	5,436	9,259	11,865	1,000	3,200	2,351	5,312	3,823	3,090
Africa	143	270	8	--	--	--	8	--	466
Ghana	--	--	--	--	--	--	--	--	398
Morocco	--	--	8	--	--	--	8	--	--
South Africa	143	270	--	--	--	--	--	--	68
Asia	1,022	4,732	5,673	653	847	1,244	2,927	2,313	1,528
Bangladesh	--	--	19	3	15	--	--	--	3
China	11	1,049	1,908	115	343	550	900	364	247
Hong Kong	140	1,250	1,264	374	--	250	640	72	--
India	--	240	331	--	--	137	194	1,160	420
Indonesia	167	262	604	74	67	263	200	342	--
Korea	200	150	328	28	150	--	150	150	209
Malaysia	--	382	--	--	--	--	--	--	--
Pakistan	11	48	5	--	5	--	--	--	49
Philippines	159	392	64	--	--	44	19	2	--
Singapore	125	272	613	41	171	--	401	70	--
Sri Lanka	--	--	--	--	--	--	--	37	--
Taiwan Province of China	--	543	72	--	72	--	--	--	219
Thailand	209	145	466	18	24	--	424	116	380
Europe	91	67	202	2	28	--	172	330	150
Hungary	91	33	17	2	7	--	9	--	150
Poland	--	--	1	--	1	--	--	--	--
Turkey	--	34	184	--	20	--	164	330	--
Middle East	60	127	257	38	22	189	8	4	20
Israel	60	127	257	38	22	189	8	4	20
Western Hemisphere	4,120	4,063	5,725	307	2,304	917	2,197	1,176	927
Argentina	356	372	2,793	--	2,095	380	318	197	380
Bolivia	--	--	10	--	--	--	10	--	--
Brazil	--	133	--	--	--	--	--	300	--
Chile	--	129	271	--	114	94	63	96	71
Colombia	--	--	91	27	--	--	64	--	82
Mexico	3,764	3,058	2,493	280	95	443	1,674	583	346
Panama	--	88	--	--	--	--	--	--	--
Peru	--	--	26	--	--	--	26	--	48
Venezuela	--	283	42	--	--	--	42	--	--
Total equity issues in international equity market	15,548	22,632	51,654	4,300	8,554	15,863	22,937	12,900	15,600
				(In percent)					
Share of developing countries in global issuance	35.0	40.9	23.0	23.3	37.2	14.8	23.2	29.6	19.8

Sources: IMF staff estimates based on Euroweek, Financial Times, International Financing Review (IFR), and IFR Equibase.

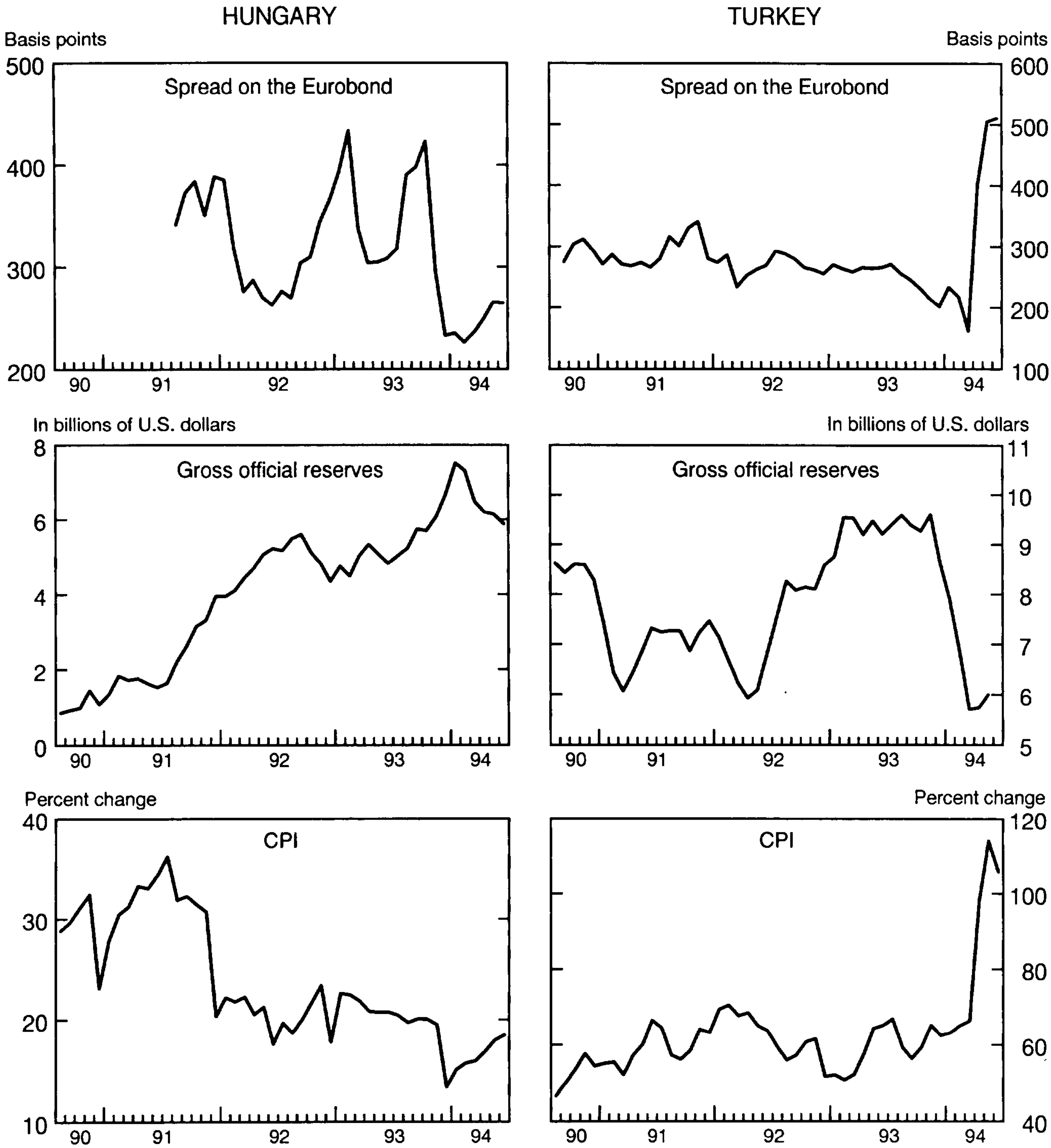
CHART 10
COMPARISON OF MOVEMENTS IN SPREADS AND ECONOMIC VARIABLES FOR MEXICO AND VENEZUELA



Sources: Reuters, Salomon Brothers; and staff estimates.

CHART 11

COMPARISON OF MOVEMENTS IN SPREADS AND ECONOMIC VARIABLES FOR HUNGARY AND TURKEY



Sources: Reuters, Salomon Brothers; and staff estimates.

Most international equity placements have been accounted for by Latin American and Asian companies. Latin American companies raised US$5.7 billion in the international equity market in 1993 and US$2.1 billion in the first half of 1994. Argentina emerged as the leading Latin American issuer in 1993, with issues increasing from US$0.4 billion in 1992 to US$2.8 billion in 1993 mainly through American depositary receipts (ADRs). 1/ Issues in 1993 were predominantly accounted for by the US$2.4 billion raised by Yacimientos Petroliferos Fiscales (a state-owned oil and gas company). Equity issues by Mexican companies declined to US$2.5 billion in 1993 from US$3.1 billion in 1992, partly owing to uncertainty about the approval of NAFTA. Following its approval in late 1993, Mexican companies raised US$1.7 billion in the final quarter of the year mainly through ADR/GDR programs, 2/ including a US$822 million GDR offering by Grupo Televisa. Companies in Bolivia, Colombia, and Peru entered the market for the first time in 1993, together raising US$127 million.

Asian companies raised US$5.7 billion in 1993 and US$3.8 billion in the first half of 1994. In 1993, Chinese companies were the leading issuers, raising US$1.9 billion, almost doubling the amount in 1992. In addition to "B" shares listed in Shanghai and Shenzhen and reserved for foreign investors, Chinese companies began in July 1993 issuing shares listed on the Hong Kong Stock Exchange. 3/ Other major developments regarding Chinese companies include the first global equity placement by Chinese companies that combined ADRs and H shares in July 1993 and the first equity placement by a private Chinese company on the Hong Kong Stock Exchange in August 1993. Indian companies stepped up equity placements, raising over US$1 billion in early 1994, compared with US$0.3 billion in 1993, as they shifted their form of financing away from convertible bonds to take advantage of the premium provided by the continuing stock market boom. Subsequently, with weak markets world-wide, equity placements declined significantly. Indonesian entities accelerated their equity issuance until March 1994 when the Indonesian authorities took steps to slow new equity issues in order to stem capital inflows. A company in Sri Lanka entered the international equity market for the first time through GDRs, and Bangladesh entities tapped international investors mainly through small issues denominated in its local currency.

International equity issues by companies in the rest of the developing world remained limited, with the exception of Turkey and Ghana. In the

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1/ An ADR is a U.S. dollar-denominated equity-based instrument backed by shares in a foreign company held in trust. An ADR is traded like the underlying shares on major U.S. exchanges or in the over-the-counter market, with clearance and settlement handled by the trustee bank.

2/ A global depository receipt (GDR) is similar to an ADR, but it is issued and traded internationally.

3/ These shares are referred to as "H" shares. For additional details, see International Capital Markets - Developments, Prospects, and Key Policy Issues - Background Material, (SM/94/141, 6/8/94).

first half of 1994, a Turkish automobile company (TOFAS) raised US$330 million through ADRs and GDRs. Ashanti Goldfields (a gold-mining company) in Ghana raised US$398 million through GDRs. Companies in Morocco and Poland entered the market for the first time in 1993 with small issues.

Over the last few years, direct equity purchases by international investors on local exchanges have become an increasingly important source of equity inflows for several developing countries. Although comprehensive statistics are not available, fragmentary information suggests that the direct purchases of equities have been quite sizable.

Mutual funds have become an increasingly important source of equity flows to developing countries over the past few years. 1/ The number of so-called emerging markets mutual equity funds increased from 91 in 1988 to 465 in 1992 and to 573 in 1993. The total net assets of these funds rose from about US$6.0 billion in 1988 to US$73.0 billion in 1993 (Chart 12 and Table 14). 2/ The significant rise in the net asset position of emerging markets mutual funds in 1993 largely reflected a sharp runup in share prices in developing countries. The overall IFC price index for developing country stocks which foreign investors are allowed to purchase (referred to as the investible index) rose by 75 percent in 1993 (Charts 13 and 14). Share prices in some Asian markets more than doubled. Adjusting for these share price increases an approximation for net purchases of developing country equities by emerging markets mutual funds (including purchases of equities issued in international capital markets) can be derived. 3/ On this basis, mutual fund purchases of equities may have amounted to as much as US$12.6 billion in 1993, compared with US$8.4 billion in 1992 (Table 15). Of these totals, issuance of closed-end emerging markets mutual funds accounted for US$2.0 billion in 1993 (Table 16).

1/ Emerging market mutual funds' investment in developing country bonds has been limited. In 1993, net assets of fixed-income funds amounted to only US$8.5 billion.

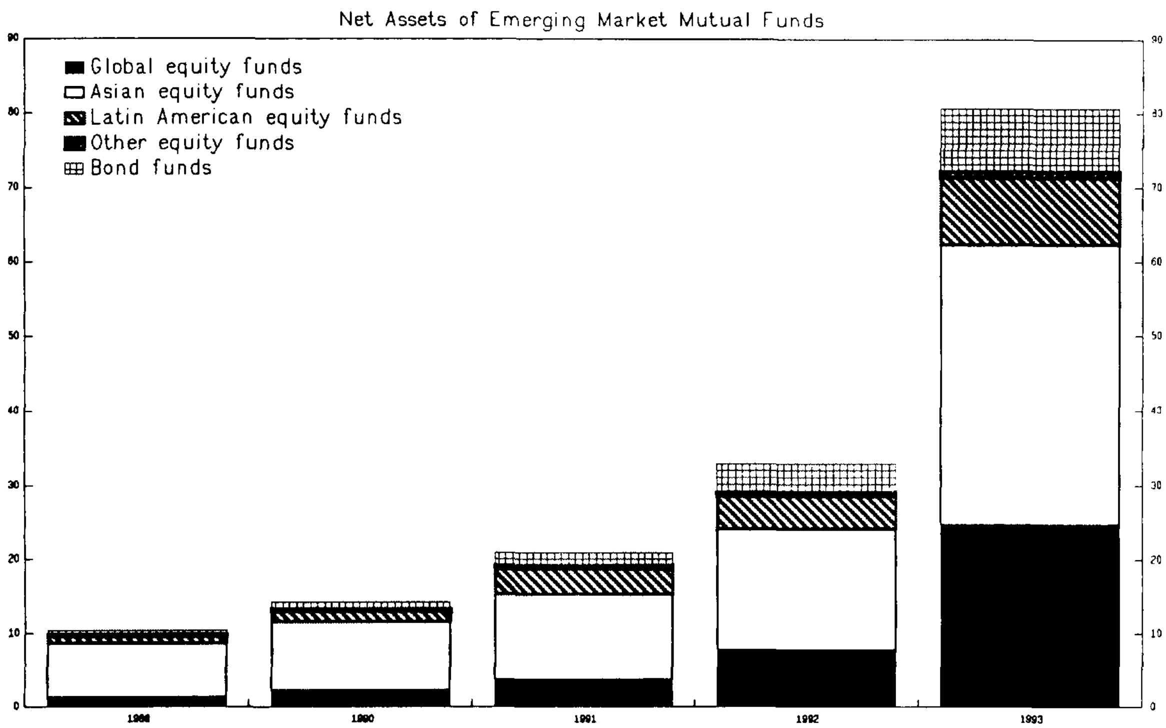
2/ These figures are based on information provided by Emerging Market Funds Research, Inc., and Lipper Analytical Services, Inc. Since funds which have invested less than 60 percent of their portfolio in emerging markets are not included, developing country assets purchased by mutual funds may be understated. However, to the extent that emerging markets mutual funds usually hold part of their assets in cash or developing country assets, the net asset value of these funds may overstate actual investment in emerging markets securities.

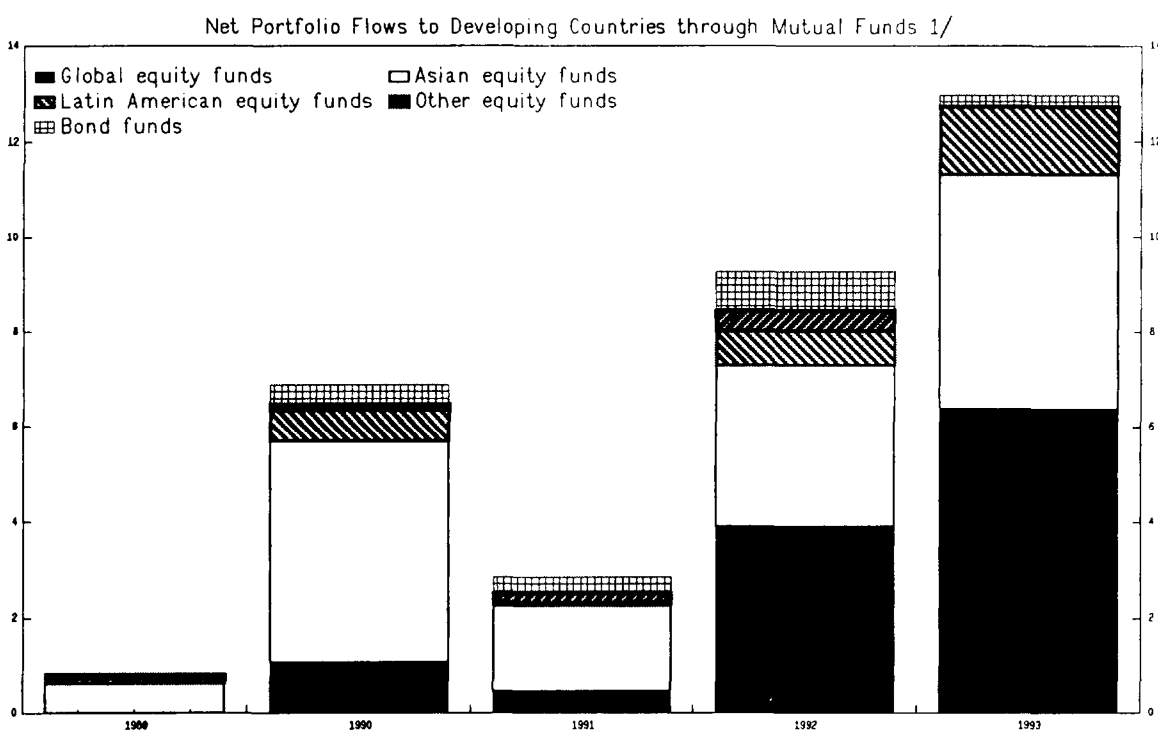
3/ Net equity purchases were estimated by deflating changes in the net assets of each regional fund by the corresponding IFC investable share price index. The estimates may be subject to a wide margin of error, especially because the country weights used for the IFC's regional and global indices may differ from the country composition of the equities held by the funds.

CHART 12

EMERGING MARKET MUTUAL FUNDS, 1989-93

(In billions of U.S. dollars)





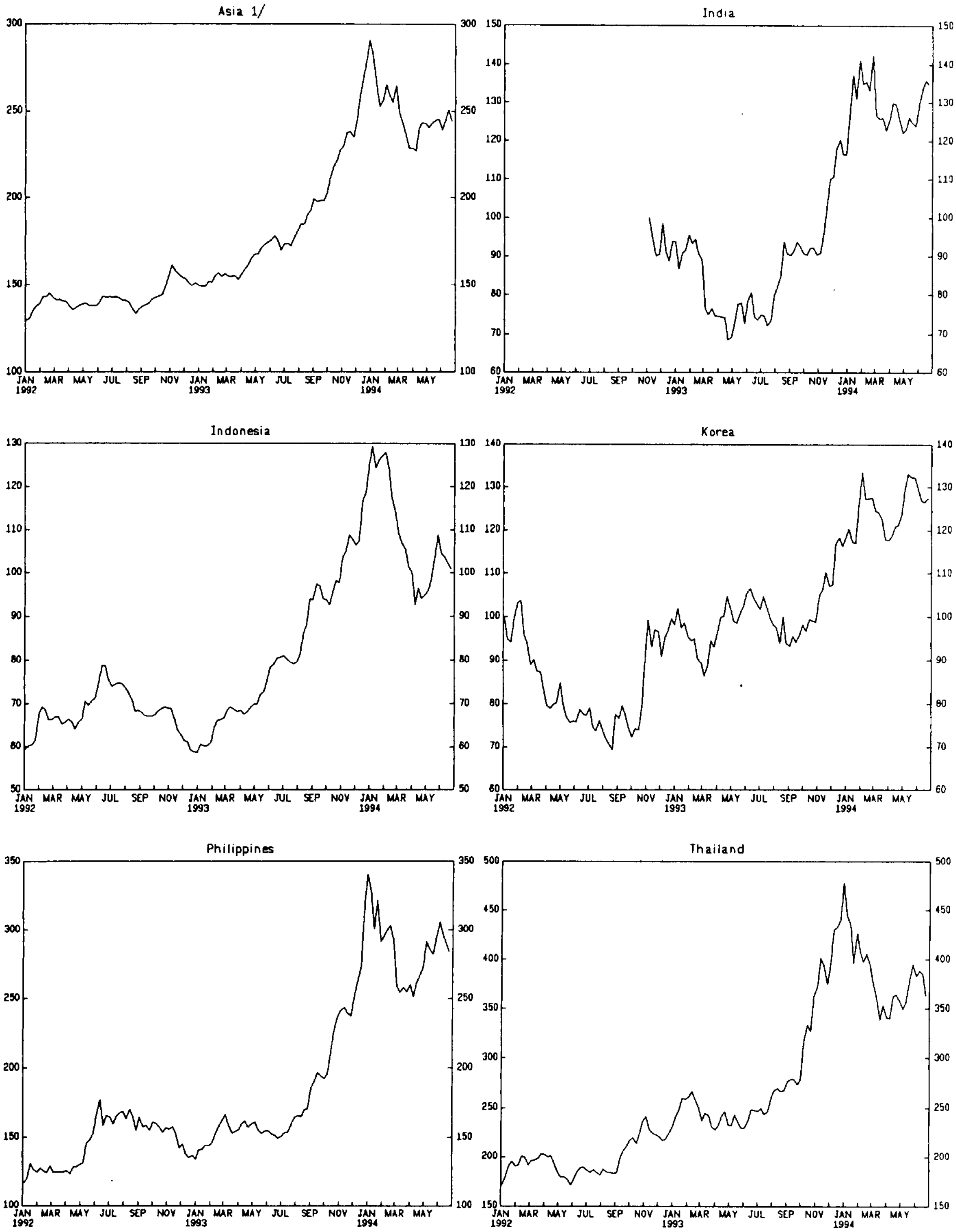
Sources: Emerging Market Funds Research, Inc.; and Lipper Analytical Svices, Inc.

1/ Net flows to developing countries are estimated by deflating changes in net assets of funds by IFC investable share price indices.

CHART 13
SHARE PRICE INDICES FOR SELECTED MARKETS IN ASIA

IFC WEEKLY INVESTABLE PRICE INDICES, DEC. 1988=100

(In U.S. dollars)

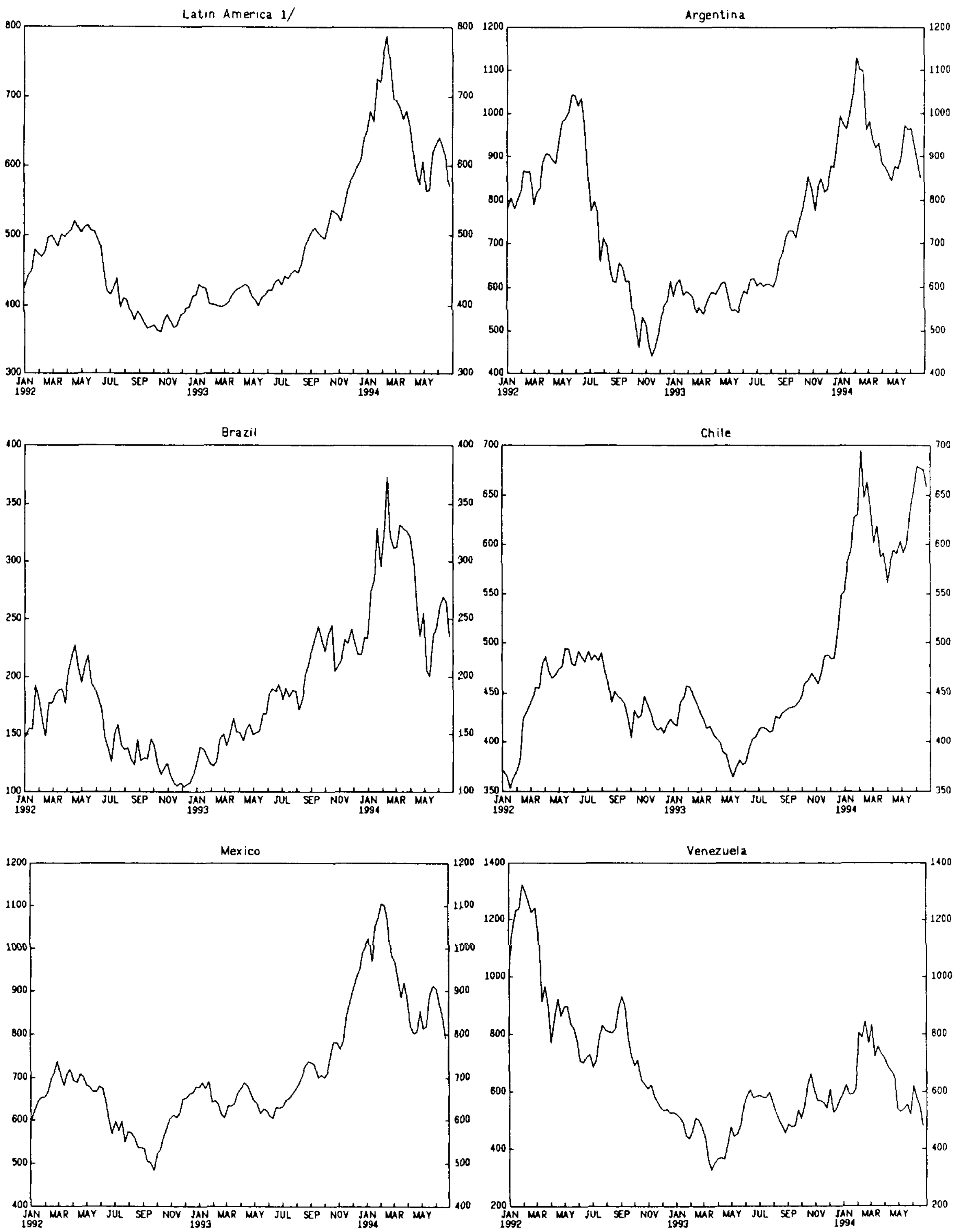


Source: IFC Emerging Markets Data Base.
1/ India, Indonesia, Korea, Malaysia, Pakistan, Philippines, Taiwan, and Thailand.

CHART 14
SHARE PRICE INDICES FOR SELECTED MARKETS IN LATIN AMERICA

IFC WEEKLY INVESTABLE PRICE INDICES, DEC. 1988=100

(In U.S. dollars)



Source: IFC Emerging Markets Data Base.
1/ Argentina, Brazil, Chile, Colombia, Mexico, and Venezuela.

Table 14. Emerging Markets Mutual Funds, 1988-93

(Net assets in millions of U.S. dollars)

	1988		1989		1990		1991		1992		1993	
	Net Assets	Number of Funds	Net Assets	Number of Funds	Net Assets	Number of Funds	Net Assets	Number of Funds	Net Assets	Number of Funds	Net Assets	Number of Funds
Equities	5,857	91	9,975	142	13,320	225	19,180	290	29,535	465	73,043	573
Global	900	15	1,350	18	2,300	29	3,750	39	7,750	78	24,750	108
Asia	4,437	72	7,435	112	9,240	174	11,575	211	16,823	312	38,465	372
Regional	1,750	35	3,100	50	4,000	75	5,350	92	8,000	115	21,500	130
China	47	2	50	2	60	3	110	4	1,300	34	3,220	48
Hong Kong	...	...	...	...	...	...	...	...	348	19	591	20
India	270	3	300	4	830	6	970	6	1,090	7	2,055	13
Indonesia	35	1	260	7	525	18	400	18	440	21	860	22
Korea	990	10	1,215	13	1,205	17	1,310	24	1,710	38	3,420	56
Malaysia/Singapore	75	3	240	7	505	17	600	17	645	23	1,039	21
Pakistan	--	--	--	--	--	--	65	2	65	3	310	6
Philippines	45	3	280	7	240	8	290	8	350	9	670	10
Sri Lanka	--	--	--	--	--	--	--	--	--	--	30	1
Taiwan Province of China	80	4	600	4	475	5	890	13	925	15	1,860	16
Thailand	845	11	1,390	18	1,400	25	1,580	26	1,920	26	2,860	26
Viet Nam	--	--	--	--	--	--	10	1	30	2	50	3
Latin America	520	4	985	9	1,455	16	3,525	33	4,517	64	9,068	78
Regional	--	--	175	2	380	5	1,510	18	2,000	40	5,200	53
Argentina	--	--	--	--	--	--	115	2	105	2	170	3
Brazil	220	3	320	3	165	3	380	4	485	8	625	8
Chile	--	--	160	2	380	4	740	4	850	4	1,115	4
Colombia	--	--	--	--	--	--	--	--	17	1	63	1
Mexico	300	1	330	2	530	4	780	5	1,040	8	1,865	8
Peru	--	--	--	--	--	--	--	--	20	1	30	1
Europe	--	--	205	3	325	6	330	7	430	10	715	13
Regional	--	--	90	2	210	4	240	5	350	8	570	11
Turkey	--	--	115	1	115	2	90	2	80	2	145	2
Africa	--	--	--	--	--	--	--	--	15	1	45	2
Bonds	275	...	500	...	900	...	1,700	...	3,750	...	8,500	...
Total funds	6,132	...	10,475	...	14,220	...	20,880	...	33,285	...	81,543	...

Sources: Emerging Market Funds Research, Inc; and Lipper Analytical Services, Inc.

Table 15. Net Bond and Equity Purchase by Emerging Markets Mutual Funds, 1989-93 1/

(In millions of U.S. dollars)

	1989	1990	1991	1992	1993
Equities	784	6,464	2,511	8,448	12,615
Global	-32	1,076	457	3,908	6,372
Asia	620	4,632	1,798	3,385	4,949
Regional	317	1,976	876	1,577	3,075
China	-14	26	40	1,016	857
Hong Kong	--	--	--	271	-74
India	24	412	2	-77	563
Indonesia	132	285	146	30	-35
Korea	160	407	352	342	1,131
Malaysia/Singapore	92	331	54	-64	-140
Pakistan	--	--	25	34	95
Philippines	131	302	-69	3	-84
Sri Lanka	--	--	--	--	17
Taiwan	-78	368	427	388	90
Thailand	-145	525	-64	-150	-540
Viet Nam	--	--	9	16	-4
Latin America	120	652	57	738	1,403
Regional	106	185	267	446	1,320
Argentina	--	--	21	28	-6
Brazil	50	244	-60	108	-149
Chile	118	124	-13	7	-4
Colombia	--	--	--	12	25
Mexico	-154	99	-158	117	213
Peru	--	--	--	20	5
Europe	75	103	199	393	-115
Regional	53	102	141	313	-81
Turkey	22	1	58	80	-33
Africa	--	--	--	24	6
Bonds	...	400	323	827	248
Total funds	784	6,864	2,834	9,275	12,864

Sources: Emerging Market Fund Research, Inc.; Lipper Analytical Services, Inc.; and IMF staff estimates.

1/ Estimated by deflating changes in the stock of fund net assets by IFC investable share prices indices for equities and by the J.P. Morgan Eurobond price index for bonds.

Table 16. Issues of Closed-End Funds Targeting Emerging Markets in Developing Countries and Regions, 1989-Second Quarter 1994

(In millions of U.S. dollars)

	1989	1990	1991	1992	1993	1994 1st qtr.	1994 2nd qtr.
Developing countries	1,859	3,482	1,193	1,421	4,151	4,246	510
Global funds	76	36	253	137	2,669	1,042	106
Africa	--	--	--	--	16	369	--
Multicountry	--	--	--	--	--	302	--
Specific country	--	--	--	--	--	66	--
Mauritius	--	--	--	--	16	--	--
South Africa	--	--	--	--	--	66	--
Asia	1,417	1,895	213	870	1,373	2,095	122
Multicountry	487	602	--	22	566	651	--
Specific country or region	930	1,294	213	848	806	1,444	122
China	--	--	--	646	456	192	--
India	168	105	--	--	--	1,138	122
Indonesia	199	312	--	--	--	--	--
Korea	--	478	140	170	110	--	--
Malaysia	150	292	--	--	--	--	--
Pakistan	--	--	23	6	178	--	--
Philippines	253	--	--	--	--	--	--
Singapore	--	--	--	--	--	--	--
Sri Lanka	--	--	--	--	--	50	--
Taiwan Province of China	56	--	40	26	--	64	--
Thailand	105	107	--	--	--	--	--
Viet Nam	--	--	10	--	62	--	--
Europe	136	976	--	122	32	312	--
Multicountry	45	841	--	--	32	312	--
Country specific	136	135	--	122	--	--	--
Bulgaria	--	--	--	--	--	--	--
Czechoslovakia	--	--	--	31	--	--	--
Hungary	80	100	--	22	--	--	--
Poland	--	--	--	69	--	--	--
Turkey	56	35	--	--	--	--	--
Middle East	--	--	--	--	50	146	--
Egypt	--	--	--	--	50	--	--
Israel	--	--	--	--	--	146	--
Western Hemisphere	230	575	727	293	10	283	282
Multicountry	178	203	440	181	10	283	282
Country specific	230	372	288	112	--	--	--
Argentina	--	--	56	--	--	--	--
Brazil	--	--	--	112	--	--	--
Chile	230	180	--	--	--	--	--
Mexico	--	192	132	--	--	--	--
Venezuela	--	--	100	--	--	--	--
Memorandum items:							
Equity funds	...	...	...	...	2,075	4,098	381
Fixed-income funds	...	...	...	...	2,076	148	129

Source: Lipper Analytical Services.

Despite a sharp drop in stock prices, the number of emerging market mutual equity funds increased by more than 90 in the first quarter of 1994, probably reflecting the time lag involved in establishing these funds. The net assets value of all funds increased by about US$9 billion despite the large decline in share prices. Data on open-end emerging markets mutual funds domiciled outside the United States suggests that the growth of emerging markets funds slowed considerably in the second quarter of 1994. Issuance of shares in closed-end emerging markets mutual funds also declined sharply from US$4.2 billion in the first quarter of 1994 to US$0.5 billion in the second quarter.

Most mutual funds continued to focus on Asian countries, with funds targeting Asian developing countries accounting for over 50 percent of total net assets of emerging markets funds in 1993. Although global mutual funds have increased considerably, it is reported that their investments have been concentrated on Asian equities. Mutual funds designated for Latin American countries accounted for only 12 percent of total net assets of emerging markets mutual funds.

4. Commercial bank lending

Banks began to show a renewed interest in lending to developing countries in 1993. In contrast to portfolio flows, however, the increase in medium- and long-term bank lending to developing countries was modest. Uninsured medium- and long-term bank commitments to developing countries increased by 7 percent to US$21 billion in 1993 (Table 17). 1/ In 1993, banks in general shortened maturities, raised spreads, and continued to use a variety of risk-reducing techniques, including asset securitization. The weighted-average maturity of uninsured bank credits to developing countries declined from 6.7 years in 1992 to 5.5 years in 1993 (Table 18) and the

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1/ As the total for 1992 was affected by a large credit to Saudi Arabia, the underlying growth was probably higher. The figure excludes loans insured by export credit agencies.

Table 17. Bank Credit Commitments by Country of Destination, 1990-First Half of 1994 1/ 2/

(In billions of U.S. dollars)

	1990	1991	1992	1993	First Half 1993	First Half 1994
Developing countries	24.6	28.5	18.5	21.2	11.2	11.4
Africa	0.6	0.2	0.6	0.2	0.1	0.1
Algeria	--	0.1	--	--	--	--
Angola	--	--	0.3	--	--	--
Côte d'Ivoire	--	--	--	--	--	--
Ghana	0.1	0.1	0.1	--	--	0.1
Morocco	0.1	--	--	--	--	--
Nigeria	--	--	--	--	--	--
South Africa	--	--	--	--	--	--
Tunisia	--	--	0.1	0.1	0.1	0.1
Zimbabwe	--	0.1	--	0.1	--	--
Other	0.4	--	0.1	--	--	--
Asia	13.4	14.6	11.9	15.7	8.7	9.2
China	1.5	2.3	2.7	3.6	2.6	1.9
Hong Kong	1.1	0.7	1.0	2.0	1.2	0.6
India	0.7	--	0.2	--	--	0.1
Indonesia	3.9	5.0	1.8	1.9	0.7	1.6
Korea	2.0	3.5	1.8	1.9	1.2	0.8
Malaysia	0.5	0.2	1.2	1.6	0.8	1.7
Pakistan	0.4	0.1	--	--	--	--
Philippines	0.7	--	--	--	--	--
Singapore	0.3	0.4	0.4	0.4	0.4	--
Taiwan Province of China	0.8	0.7	0.8	0.9	0.3	--
Thailand	1.3	1.6	2.0	3.4	1.4	2.3
Viet Nam	--	--	--	--	--	--
Other	0.2	0.3	--	--	0.1	0.2
Europe	4.9	1.9	2.1	2.6	1.4	0.6
Bulgaria	--	--	--	--	--	--
Czech Republic	--	--	--	0.2	0.2	--
Hungary	--	0.1	0.2	0.3	0.1	0.2
Turkey	1.8	1.6	1.8	1.9	1.0	0.2
Former U.S.S.R.	3.0	--	--	--	--	--
Slovenia	--	--	--	0.1	--	--
Other	0.1	0.2	0.1	--	0.1	0.2
Middle East	1.7	10.7	3.0	0.4	0.3	1.3
Bahrain	1.6	0.4	0.1	0.1	0.1	0.5
Egypt	--	--	--	--	--	--
Kuwait	--	5.5	--	--	--	--
Jordan	--	--	--	--	--	--
Saudi Arabia	0.1	4.5	2.9	0.2	0.2	0.2
Other	0.1	0.3	--	0.1	--	0.6
Western Hemisphere	4.0	1.0	0.9	2.2	0.7	0.2
Argentina	--	--	--	0.4	--	--
Brazil	--	--	0.2	0.2	--	--
Chile	0.3	--	0.4	0.3	--	0.1
Colombia	--	0.2	--	0.1	0.1	--
Mexico	1.6	0.6	0.2	0.4	0.4	0.1
Uruguay	--	0.1	--	--	--	--
Venezuela	1.4	--	0.2	0.8	0.2	--
Banking centers (Cayman and Bahamas)	--	--	--	0.1	--	--
Other	0.7	0.1	--	--	--	--
Memorandum items:						
Total bank credit commitments	124.5	116.0	117.9	136.7	74.1	54.8
Share of bank credit commitments to developing countries in total	19.8%	24.6%	15.7%	15.5%	15.2%	20.7%

Source: Organization for Economic Cooperation and Development, Financial Statistics Monthly.

1/ Covers only medium- and long-term loans that are not insured by export credit agencies.
2/ Includes offshore banking centers.

Table 18. Terms of Long-Term Bank Credit Commitments, 1989-June 1994 1/

	1989	1990	1991	1992	1993	Jan-June 1994
Average maturity (in years)	6.2	6.8	5.4	5.7	5.5	5.8
OECD countries	5.8	5.8	5.1	5.7	4.4	5.7
Eastern Europe	8.3	11.9	...	...	...	...
Developing countries	7.3	9.8	7.6	6.7	5.5	6.8
Other	8.8	7.7	3.5	6.9	5.3	5.0
Average spread (basis points)	56	54	79	85	81	82
OECD countries	54	51	80	86	77	79
Eastern Europe	49	50	...	...	...	...
Developing countries	68	66	75	86	106	99
Other	32	66	71	60	83	35
Memorandum (in percent)						
Six-month Eurodollar interbank rate (average)	9.27	8.35	6.08	3.90	3.41	4.31
U.S. prime rate (average)	10.92	10.01	8.46	6.25	6.00	6.46

Sources: Organization for Economic Cooperation and Development (OECD), Financial Market Trends; and IMF, International Financial Statistics (for Eurodollar and prime rates).

1/ The country classification and loan coverage are those used by the OECD.

weighted average spread over the LIBOR rose from 86 basis points in 1992 to 106 basis points in 1993. In the first half of 1994, the weighted-average maturity increased to 6.8 years, and the spread narrowed to 99 basis points. The spreads varied considerably among developing countries from 60-70 basis points for borrowers in Korea and Malaysia to 300 basis points for borrowers in India and Mexico (Table 19). The U.S. dollar continued to be the most important currency of denomination, accounting for over 80 percent of total syndicated loans to developing countries in 1993.

The bulk of syndicated bank loans continued to be directed towards Asia, although lending to Latin America increased significantly in 1993. Uninsured medium- and long-term bank loan commitments to Asian borrowers increased to US$15.7 billion in 1993, after having declined in 1992. China continued to be the largest Asian borrower, receiving loans totaling US$3.6 billion in 1993, followed by Thailand (US$3.4 billion), Hong Kong (US$2.0 billion), Korea and Indonesia (US$1.9 billion each), and Malaysia (US$1.6 billion). In the first half of 1994, loan commitments to Asia amounted to US$9.2 billion, including US$3.7 billion in commitments to Thailand. Other noteworthy developments included the first sovereign loan to Indonesia (US$400 million) since 1991 and a US$1.2 billion loan to a petroleum company in Thailand, the largest borrowing in the Asian loan market in the past five years.

In Latin America, uninsured medium- and long-term bank loan commitments increased from US$0.9 billion in 1992 to US$2.2 billion in 1993. Venezuela increased bank borrowing to US$0.8 billion in 1993, partly owing to borrowing by public sector oil exporters. Argentina received commitments (US$0.4 billion) for the first time in the 1990s, while Brazil, Chile, and Mexico in 1993 maintained access to bank credits on the order of US$0.2-0.4 billion. In the first half of 1994, bank loan commitments to Latin American borrowers declined sharply to only US$0.2 billion.

New commitments to developing countries in Europe remained subdued, amounting to US$2.6 billion in 1993 and US$0.6 billion in the first half of 1994, and continued to be confined to a handful of countries. Turkey continued to be the major borrower, receiving new commitments of US$1.9 billion in 1993, although banks recently have became cautious in extending new loans in light of its economic difficulties. Bank loan commitments to other European countries remained small, although several countries made their debut in the international credit markets, including the Czech Republic and Slovenia. A widely publicized DM 1.4 billion co-financing facility for the Czech Republic's Skoda Automodilova was canceled in September 1993, part of a general retrenchment of a German automobile company's international investment activity. New bank commitments to the Middle East increased to US$1.3 billion in the first half of 1994, compared with US$0.4 billion in 1993, reflecting increased development projects, while bank lending to Africa remained almost nonexistent.

Table 19. Terms on Syndicated Bank Credits for Selected Developing Countries, 1990-June 1994 1/

	1990		1991		1992		1993		Jan-June 1993		Jan-June 1994	
	Maturity	Spread	Maturity	Spread	Maturity	Spread	Maturity	Spread	Maturity	Spread	Maturity	Spread
	(In years)	(In basis points)	(In years)	(In basis points)	(In years)	(In basis points)	(In years)	(In basis points)	(In years)	(In basis points)	(In years)	(In basis points)
Africa												
Algeria	...	...	7.0	75	...	...	...	...	...	...	...	...
Tunisia	...	...	...	...	4.0	101	6.0	126	6.0	126	...	...
Zimbabwe	...	...	1.0	85	1.0	85	1.0	95	...	...	...	...
Asian												
China	10.8	61	9.3	114	7.5	111	7.9	96	7.5	99	7.7	98
Hong Kong	5.3	52	7.8	66	6.5	96	7.8	69	9.2	53	6.4	58
India	9.1	32	...	...	4.6	100	5.0	260	...	...	2.2	140
Indonesia	10.5	76	9.9	99	5.7	134	3.0	157	3.7	155	4.2	126
Korea	10.2	48	8.8	67	5.5	68	4.0	66	4.8	64	6.0	78
Malaysia	13.3	58	9.5	102	9.9	78	8.8	57	7.8	60	10.9	93
Pakistan	13.0	100	1.0	90	...	...	...	...	...	...	...	...
Singapore	9.3	34	3.8	134	...	...	6.4	110	5.3	125	3.0	125
Taiwan Province of China	...	...	2.3	93	2.4	104	3.6	104	4.3	101	5.0	100
Thailand	8.8	54	7.8	78	5.3	82	5.1	102	4.8	99	4.7	98
Europe												
Hungary 2/	8.0	82	6.0	138	6.1	134	8.3	200	9.9	266	5.3	172
Turkey 2/	2.2	65	2.4	85	2.9	133	2.7	94	2.8	90	2.0	65
Middle East												
Bahrain	8.6	43	4.8	67	2.0	75	...	...	...	...	5.8	99
Kuwait	...	...	5.0	50	...	...	...	...	...	...	...	...
Saudi Arabia	...	...	3.0	38	...	...	...	...	...	...	3.0	100
Western Hemisphere												
Chile	...	...	...	...	9.0	38	4.2	125	...	...	...	...
Colombia	...	...	12.8	150	...	...	...	...	...	...	...	...
Mexico	14.4	89	...	...	...	...	6.7	300	6.7	300	6.0	250
Uruguay	...	...	13.0	98	1.0	75	...	...	...	...	...	...
Venezuela	...	...	...	...	1.2	134	6.5	223	8.8	174	...	...

Sources: Organization for Economic Cooperation and Development (OECD); and Euromoney Loanware.

1/ Excludes concerted commitments.
2/ Based on Euromoney Loanware for 1992-June 1994.

5. Other issues

The strong growth in demand for developing country securities in 1993 occurred even though these assets are generally riskier than their counterparts in developed financial markets. Returns on equities in some developing countries have been significantly more volatile than equity returns in the United States. Similarly, returns on selected developing country bonds have tended to be more volatile than the return on the comparable U.S. Treasury bond (Chart 15). Despite the higher risk on equities, investors sought the significantly higher returns offered by these assets, and increasingly perceived that these assets offered good opportunities for risk diversification. 1/

The evidence shows that equity returns in many developing countries have low or negative correlations with equity returns in the U.S. and other developed financial markets and that returns among many developing country equities are relatively uncorrelated. 2/ This pattern of correlations suggests that the expected return of a portfolio can be increased for a given level of risk by adding developing country equities, even though these assets are riskier on average than equities in industrial country markets. 3/ In contrast, total returns on developing country bonds (both Brady bonds and new issues) have also been relatively uncorrelated with the total return on the comparable U.S. Treasury bond and among themselves (Tables 20 and 21).

These historical correlations change over time and are not a certain guide to the future relationship between returns on industrial country and developing country securities. The correlation between prices on Brady bonds and U.S. Treasury securities rose substantially in 1993 and the first half of 1994. Returns on new developing country bond issues also became

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1/ A fuller discussion of the factors behind the growth in investor demand are presented in International Capital Markets - Developments, Prospects, and Key Policy Issues, (EBS/94/113), May 31, 1994.

2/ IFC, Quarterly Review of Emerging Markets, First Quarter 1994.

3/ Consider an example of two very risky assets with the same average return, but that always move in the opposite direction, i.e., their returns are perfectly negatively correlated. A portfolio divided equally between these two assets would in principle involve no risk as the movements in the two asset returns would always offset each other. Thus, a portfolio composed of both assets would yield the same expected return, while involving less risk than a portfolio consisting entirely of either one of the assets. These points have been applied to portfolios with emerging markets assets in a number of articles, such as Harvey, Campbell, "Portfolio Enhancement Using Emerging Markets as Conditioning Information," presented at World Bank Symposium on Portfolio Investment in Developing Countries, September 1993.

Table 20. Correlation Among Total Returns on Bonds for Selected Countries

	April 1992 - December 1993							
	USA	Hungary	Turkey	Venezuela	Brazil	Argentina	Mexico	Thailand
USA	1.00	...	...	...	...	...	...	...
Hungary	0.25	1.00	...	...	...	...	...	...
Turkey	0.65	0.16	1.00	...	...	...	...	...
Venezuela	0.48	0.32	-0.03	1.00	...	...	...	...
Brazil	0.19	0.27	-0.29	0.35	1.00	...	...	...
Argentina	--	-0.06	0.16	-0.03	-0.24	1.00	...	...
Mexico	0.66	0.65	0.44	0.71	0.33	0.09	1.00	...
Thailand	0.94	0.33	0.65	0.48	0.16	0.01	0.72	1.00

	January - June 1994							
	USA	Hungary	Turkey	Venezuela	Brazil	Argentina	Mexico	Thailand
USA	1.00	...	...	...	...	...	...	...
Hungary	0.96	1.00	...	...	...	...	...	...
Turkey	0.95	0.88	1.00	...	...	...	...	...
Venezuela	0.74	0.67	0.60	1.00	...	...	...	...
Brazil	0.51	0.61	0.24	0.59	1.00	...	...	...
Argentina	0.80	0.92	0.67	0.46	0.75	1.00	...	...
Mexico	0.88	0.98	0.78	0.60	0.68	0.96	1.00	...
Thailand	0.98	0.96	0.92	0.64	0.56	0.88	0.90	1.00
Average								

Sources: Reuters News Service; and Bloomberg Business News.

Table 21. Correlation Among Secondary Market Prices of Brady Bonds

	February - December 1992												
	Argentina	Brazil	Bulgaria	Ecuador	Mexico	Morocco	Nigeria	Panama	Peru	Philippines	Poland	Russia	Venezuela
Argentina	1.00	...	...	...	...	...	...	...	...	...	...	...	...
Brazil	0.47	1.00	...	...	...	...	...	...	...	...	...	...	...
Bulgaria	0.27	1.65	1.00	...	...	...	...	...	...	...	...	...	...
Ecuador	0.60	-0.14	-0.05	1.00	...	...	...	...	...	...	...	...	...
Mexico	0.50	-0.24	-0.12	0.80	1.00	...	...	...	...	...	...	...	...
Morocco	0.70	-0.07	-0.20	0.86	0.75	1.00	...	...	...	...	...	...	...
Nigeria	0.72	0.72	0.51	0.14	0.10	0.22	1.00	...	...	...	...	...	...
Panama	0.77	0.20	0.17	0.64	0.51	0.76	0.35	1.00	...	...	...	...	...
Peru	0.14	-0.26	-0.43	0.50	0.28	0.53	-0.13	0.14	1.00	...	...	...	...
Philippines	0.30	-0.52	-0.36	0.82	0.79	0.74	-0.21	0.45	0.62	1.00	...	...	...
Poland	0.61	-0.15	-0.20	0.73	0.73	0.85	0.03	0.78	0.23	0.64	1.00	...	...
Russia	0.07	0.74	0.54	-0.48	-0.53	-0.48	0.55	-0.26	-0.31	-0.66	-0.63	1.00	...
Venezuela	0.31	0.12	0.50	0.41	0.53	0.18	0.34	0.28	-0.28	0.25	0.16	-0.01	1.00
30-year U.S. Treasury bond	0.06	-0.68	-0.45	0.53	0.73	0.55	-0.40	0.35	0.27	0.75	0.67	-0.88	0.21

	January - December 1993												
	Argentina	Brazil	Bulgaria	Ecuador	Mexico	Morocco	Nigeria	Panama	Peru	Philippines	Poland	Russia	Venezuela
Argentina	1.00	...	...	...	...	...	...	...	...	...	...	...	...
Brazil	0.97	1.00	...	...	...	...	...	...	...	...	...	...	...
Bulgaria	0.92	0.91	1.00	...	...	...	...	...	...	...	...	...	...
Ecuador	0.87	0.82	0.94	1.00	...	...	...	...	...	...	...	...	...
Mexico	0.98	0.93	0.93	0.89	1.00	...	...	...	...	...	...	...	...
Morocco	0.98	0.98	0.91	0.82	0.95	1.00	...	...	...	...	...	...	...
Nigeria	0.96	0.92	0.88	0.85	0.95	0.93	1.00	...	...	...	...	...	...
Panama	0.90	0.82	0.92	0.96	0.92	o.83	0.89	1.00	...	...	...	...	...
Peru	0.96	0.92	0.97	0.96	0.96	0.93	0.93	0.96	1.00	...	...	...	...
Philippines	0.97	0.91	0.90	0.86	0.94	0.93	0.94	0.89	0.94	1.00	...	...	...
Poland	0.94	0.90	0.98	0.93	0.95	0.91	0.89	0.94	0.98	0.91	1.00	...	...
Russia	0.95	0.93	0.94	0.90	0.95	0.94	0.94	0.91	0.96	0.89	0.94	1.00	...
Venezuela	0.94	0.95	0.85	0.76	0.89	0.96	0.87	0.75	0.86	0.91	0.85	0.86	1.00
30-year U.S. Treasury bond	0.88	0.87	0.73	0.58	0.85	0.90	0.85	0.63	0.75	0.84	0.76	0.81	0.87

Table 21 (concluded). Correlation Among Secondary Market Prices of Brady Bonds

	January - June 1994												
	Argentina	Brazil	Bulgaria	Ecuador	Mexico	Morocco	Nigeria	Panama	Peru	Philippines	Poland	Russia	Venezuela
Argentina	1.00	...	...	...	...	...	...	...	...	...	...	...	...
Brazil	0.87	1.00	...	...	...	...	...	...	...	...	...	...	...
Bulgaria	0.84	0.95	1.00	...	...	...	...	...	...	...	...	...	...
Ecuador	0.90	0.86	0.76	1.00	...	...	...	...	...	...	...	...	...
Mexico	0.98	0.91	0.87	0.91	1.00	...	...	...	...	...	...	...	...
Morocco	0.90	0.64	0.58	0.87	0.84	1.00	...	...	...	...	...	...	...
Nigeria	0.98	0.89	0.83	0.92	0.97	0.86	1.00	...	...	...	...	...	...
Panama	0.85	0.86	0.77	0.93	0.85	0.82	0.83	1.00	...	...	...	...	...
Peru	0.94	0.91	0.82	0.95	0.95	0.86	0.95	0.94	1.00	...	...	...	...
Philippines	0.98	0.88	0.83	0.89	0.96	0.88	0.97	0.86	0.95	1.00	...	...	...
Poland	0.97	0.83	0.77	0.92	0.95	0.92	0.96	0.86	0.94	0.95	1.00	...	...
Russia	0.11	0.68	0.65	0.75	0.86	0.77	0.86	0.60	0.79	0.83	0.87	1.00	...
Venezuela	0.97	0.85	0.80	0.89	0.97	0.86	0.92	0.78	0.92	0.96	0.96	-0.01	1.00
30-year U.S. Treasury bond	0.95	0.94	0.89	0.86	0.97	0.76	0.96	0.83	0.93	0.95	0.90	0.80	.94

Source: Salomon Brothers.

more highly correlated with U.S. bond returns and among each other in the first half of 1994. Correlations among equity returns appear to have been more stable, although for some countries the correlations rose significantly in the first half of 1994 (Table 22). This evidence would suggest that the benefits to be gained by diversifying into developing country securities may be weaker in periods of significant market disturbances.

The volatility of returns on many developing country securities has not tended to diminish over time, and for many countries it increased in the first half of 1994. These strong movements in 1994 followed a period of strong expansion in the investor base, which raises questions about the relationship between market volatility and the investor base.

In the traditional view of a financial market, growth in the number of investors would diminish volatility over time as new investors would add liquidity and more diversity in expectations and risk preferences, implying that the market could be cleared with smaller movements in prices. 1/ This view, however, is based on the assumption that differences in the expectations, risk preferences, and liquidity needs among investors are purely random, which means that the new investors are essentially drawn from the same population as existing investors. If instead new investors differ with respect to these considerations systematically from existing investors, an expansion of the investor base could contribute to higher volatility. For example, if new investors have much poorer information, their expectations will be more variable, and their entry into the market could add to price volatility.

The traditional framework also assumes that no investor is able to influence the price of the assets traded in the market. Recent work has focussed on the implications of a less competitive structure in financial markets. 2/ Under such a structure, the investor base in a market can be assumed to consist of small, risk averse investors, arbitragers, and a few large investors with inside information and an ability to influence the market price. To maintain the value of their inside information, the large investors try to conceal their trades from other market participants, suggesting that the price of the asset will not necessarily reflect all available information. In this situation, an increase in the number of large investors, who are trying to conceal trades and to influence the market price, could at least initially add to volatility. 3/

1/ This view of the structure of a financial market is reviewed in Grossman, S.J., and J.E., Stiglitz, "On the Impossibility of Informationally Efficient Markets", American Economic Review, 1980, Vol. 70, pages 393-408.
2/ This approach is developed in Kyle, A.S., "Continuous Auctions and Insider Trading", Econometrica, 1985, Vol 53, pages 1315-1335; and Campbell, J.Y, and Kyle, A.S., "Smart Money, Noise Trading, and Stock Price Behavior," Review of Economic Studies, 1993, Vol. 60, pages 1-34.
3/ The ability of large traders to conceal their trades would be expected to diminish over time as the number of large traders increased.

Table 22. Correlation Among Total Returns on Equity for Selected Countries

January 1992 - December 1993

	Brazil	Mexico	Argentina	Venezuela	Thailand	Malaysia	Turkey	USA	U.K.	Japan
Brazil	1.00	...	...	...	...	...	...	...	...	...
Mexico	0.17	1.00	...	...	...	...	...	...	...	...
Argentina	0.39	0.42	1.00	...	...	...	...	...	...	...
Venezuela	0.27	-0.06	-0.03	1.00	...	...	...	...	...	...
Thailand	-0.12	0.30	0.23	0.04	1.00	...	...	...	...	...
Malaysia	-0.08	0.40	0.14	0.26	0.52	1.00	...	...	...	...
Turkey	0.10	-0.42	-0.07	0.28	0.05	0.15	1.00	...	...	...
USA	0.64	0.29	0.27	0.22	-0.10	-0.13	-0.07	1.00	...	...
U.K.	0.14	0.56	0.49	-0.24	0.27	0.33	-0.21	0.35	1.00	...
Japan	0.20	-0.11	--	-0.10	-0.04	0.20	0.17	0.14	0.19	1.00

January - June 1994

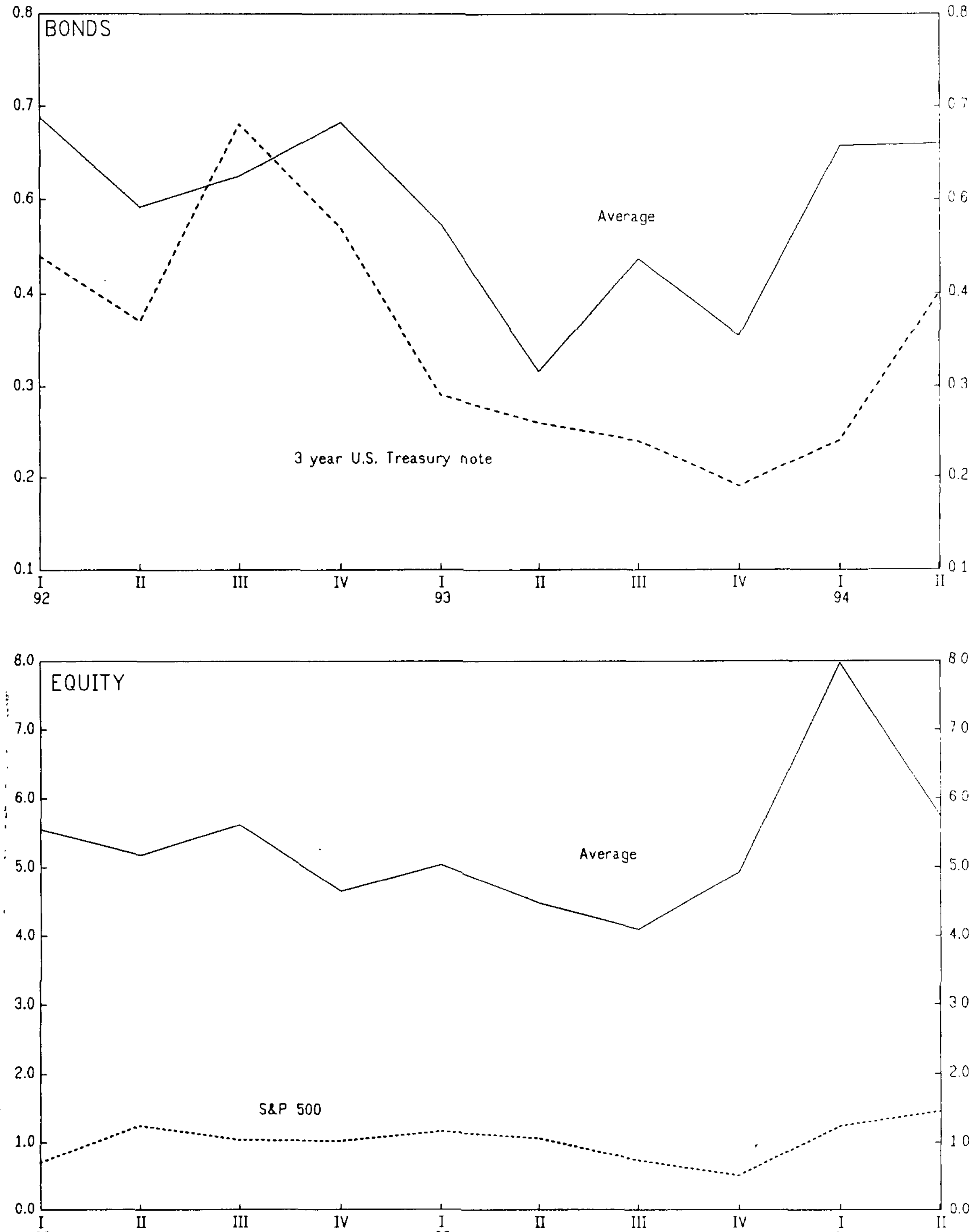
	Brazil	Mexico	Argentina	Venezuela	Thailand	Malaysia	Turkey	USA	U.K.	Japan
Brazil	1.00	...	...	...	...	...	...	...	...	...
Mexico	0.43	1.00	...	...	...	...	...	...	...	...
Argentina	0.31	0.96	1.00	...	...	...	...	...	...	...
Venezuela	0.37	0.18	0.35	1.00	...	...	...	...	...	...
Thailand	-0.64	0.40	0.46	-0.23	1.00	...	...	...	...	...
Malaysia	-0.74	-0.34	-0.18	-0.07	0.43	1.00	...	...	...	...
Turkey	0.06	0.07	-0.08	-0.32	0.18	-0.03	1.00	...	...	...
USA	0.76	0.40	0.29	0.34	-0.30	-0.45	0.62	1.00	...	..
U.K.	0.69	0.74	0.73	0.39	-0.12	-0.18	-0.07	0.54	1.00	..
Japan	0.88	0.17	0.12	0.51	-0.72	-0.37	0.13	0.78	0.67	1.00

Source: IFC Emerging Markets Database.

CHART 15

WEEKLY VOLATILITY OF TOTAL RETURNS ON BONDS AND EQUITIES FOR SELECTED COUNTRIES 1/

(In percent)



Sources: IFC; and Reuters.

1 / Simple volatility averages of represesentative bond issues and IFC investable equity indices for Argentina, Brazil, Hungary, Korea, Mexico, Thailand, Turkey, and Venezuela.

The experiences of developing countries that have opened their stock markets to foreign investors do not provide a clear picture as to the relationship between market volatility and the investor base. The volatility of equity returns in 17 developing countries was compared before and after the opening of their equity markets to foreign investors, and the results show that price volatility increased in eight cases (Table 23). 1/ The volatility of equity purchases was also examined for 14 of these countries using U.S. balance of payments data which provide country details on purchases by U.S. residents. 2/ These data show that, in all cases, both the volume and volatility of equity purchases by U.S. investors increased substantially after these countries opened their stock markets to foreign investors (Table 24).

IV. Institutional and Regulatory Framework for Developing Country Financing

Efforts by many developing countries to establish a reliable domestic capital market have played an important role in attracting foreign capital. This chapter reviews recent measures taken by developing countries to improve their institutional setting, to harmonize regulations, and to broaden their investor bases both at home and abroad. It also reviews recent changes in regulations in creditor countries affecting developing countries' access to international capital markets.

1. Regulatory structures and domestic capital market reforms in developing countries

There are some 47 emerging stock markets. 3/ However, their characteristics in terms of liquidity, market access, and capitalization vary substantively according to their level of development. A number of commentators have attempted to categorize emerging markets according to their level of progress towards complete liberalization. 4/ Markets are seen to evolve through four phases. In the initial stage, newly-established equity markets are characterized by low capitalization, thin markets resulting in low liquidity and high volatility, and an institutional

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1/ The indices of equity prices were drawn from the IFC's Emerging Markets Database.

2/ Treasury Bulletin, U.S. Department of Treasury.

3/ IFC Factbook, 1994, identifies 47 emerging stock markets, including the 25 markets which constitute the IFC composite index. Hong Kong and Singapore are excluded as these markets are considered to be developed.

4/ See Papaioannou, Michael and L. Duke, "The Internationalization of Emerging Equity Markets," Finance and Development, September 1993 and Feldman Robert A., and M.S. Kumar Emerging Equity Markets: Growth, Benefits, and Policy Concerns, IMF Papers on Policy Analysis and Assessment, March 1994.

Table 23. Total Returns on Equity in Selected Emerging Market Countries: Before and After Opening to Foreign Investors 1/

(In percent at annual rate)

	Before		After	
	Mean	Volatility 2/	Mean	Volatility 2/
Greece	1.7	28.3	29.4	45.6
Portugal	107.1	72.8	5.6	24.9
Turkey	52.4	79.5	47.6	71.7
Jordan	10.6	16.4	11.6	18.6
Argentina	63.9	102.6	61.8	63.6
Brazil	13.9	56.5	75.1	59.8
Chile	33.5	41.9	42.3	25.8
Colombia	32.1	21.9	67.2	42.4
Mexico	24.0	47.0	45.2	27.3
Venezuela	6.3	40.6	52.8	49.2
India	19.2	25.9	21.8	34.6
Korea	20.8	30.6	8.8	28.5
Malaysia	12.1	31.6	25.1	23.9
Pakistan	12.3	10.5	46.4	35.8
Philippines	76.9	38.3	23.0	36.5
Taiwan	52.9	54.3	14.4	50.4
Thailand	20.6	23.9	29.0	31.5

Source: IFC Emerging Markets Database.

1/ Time period is 1976, quarter 1 to 1994, quarter 2. The actual dates of opening to foreign investors are as follows: Greece - December 1988; Portugal - December 1988; Turkey - August 1989; Jordan - December 1988; Argentina - October 1991; Brazil - May 1991; Chile - December 1988; Colombia - February 1991; Mexico - May 1989; Venezuela - January 1990; India - November 1992; Korea - January 1992; Malaysia - December 1988; Pakistan - February 1991; Philippines - October 1989; Taiwan - January 1991; Thailand - December 1988. For analytical purposes, the opening date was taken to be four months prior to the actual date, in order to capture the fluctuations in the market caused by changes in investor expectations.

2/ Volatility is measured by the standard deviation of the percent change in the IFC total return indices.

Table 24. U.S. Net Purchases of Foreign Equity in Selected Countries: Before and After Opening to Foreign Investors

(In millions of U.S. dollars)

	Before		After	
	Mean	Volatilty 1/	Mean	Volatility 1/
Greece	-0.4	4.5	41.3	20.0
Portugal	1.8	3.2	58.6	44.8
Argentina	-1.2	12.2	1,037.8	496.6
Brazil	50.7	71.9	1,165.9	403.4
Chile	2.6	9.9	114.3	73.8
Mexico	24.4	26.5	2,283.5	1,331.2
Venezuela	-0.5	3.0	1.5	66.2
India	0.8	2.1	149.7	99.8
Korea	2.7	16.3	817.9	502.9
Malaysia	13.1	16.3	275.8	162.7
Philippines	3.8	14.4	94.3	57.3
Taiwan	-4.2	12.6	27.7	34.4
Thailand	15.6	13.7	29.1	48.9

Source: U.S. Treasury Bulletin.

1/ Measured by the standard deviation.

environment that is elementary. As markets develop, market access improves with more adequate legislative and regulatory control, increasing liquidity, growing listings, and foreign investors becoming increasingly aware of the diversification benefits of these markets. This leads to a more expansive phase, with rapidly rising trading activity--facilitated by the introduction of electronic centralized systems. Finally, markets enter a mature stage where institutional changes are guided by harmonization efforts and the framework of the markets become more comparable with that of developed countries; similarly, equity risk premiums decline to internationally competitive levels.

a. Regulatory structures

Over the last year, many emerging market countries have taken steps to improve the quality of regulation aimed at deepening and increasing transparency in their capital markets.

Mexico introduced widespread regulatory reform in 1993 aimed at strengthening the supervisory authority of the Comision Nacional de Valores, improving the market's institutional structure, and formalizing automated trading. Uruguay is framing a bill to regulate its capital markets and create a securities regulator; currently, the Central Bank regulates the stock exchange. In February 1994, Poland introduced a new securities law to govern the creation of an over-the-counter market, which establishes tough penalties for securities offenses.

Russia has some 80 small stock exchanges dispersed throughout the country, and most of the trading is conducted over-the-counter. In a recent survey, about half of the country's privatized enterprises envisaged raising capital with new share issues in 1994 (and from July 1, 1994, all shares are to be sold for cash rather than vouchers). Russia's recently formed Commission on Securities and Stock Exchanges is now responsible for unifying all state agencies under a single entity and developing market regulations. It is currently drafting legislation to create a single independent regulatory body that will cover several areas, including disclosure and clearing and settlement systems.

Following an overhaul of China's regulatory framework in early 1993, a number of further revisions have been made over the last year, although passage of a permanent National Securities Law has yet to be ratified by the

People's Congress. 1/ In an effort to restrict the rising incidence of informal curb markets, the authorities have recently made it mandatory that all shares be issued and traded through state-run securities firms. Chengdu, in southwestern China's Sichuan province, is currently seeking to establish China's third stock exchange after Shenzhen and Shanghai, following the closure of a large black market exchange. Efforts to increase listings of "B" shares and to attract foreign investors are being taken. The Shenzen Stock Exchange also has introduced a number of measures aimed at improving disclosure and accounting standards within a tighter regulatory structure for "B" shares.

Many countries over the last year have taken action to improve disclosure, listing, and accounting standards, which makes the local capital market more transparent and promotes investor confidence. Introduced in December 1993, Venezuela's Comision Nacional de Valores has mandated regulations to harmonize the financial statements of companies listed on the country's stock exchanges, and auditors are to be responsible for supervising the preparation of financial reports. Peru's Bolsa de Valores de Lima requires that all listed companies disclose complete financial information for the conglomerate entity. In Malaysia, by August 1994, all listed companies will have to establish audit committees. These committees will review internal accounting controls, as well as external financial reporting, as a means of ensuring more accurate financial disclosure. In recognition of the evolving nature of their markets, some countries apply a tiered system of disclosure. For example, in the Czech Republic, listed companies on the Prague Stock Exchange must provide quarterly as well as annual reports and are required to promptly report substantive events affecting the value of their shares. Unlisted yet tradable companies however, do not need to provide quarterly reports.

Deficiencies in investor protection can seriously undermine investor confidence in the emerging market. 2/ However, as markets mature and develop in sophistication, countries have increasingly recognized the need to improve investor protection through surveillance and enforcement of measures to limit insider trading. A number of changes that have been

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1/ The State Council Securities Policy Commission assumed chief responsibility for regulatory and surveillance for China's securities markets in early 1993. Temporary regulations were introduced governing the domestic market ("A" shares and bonds) and the Hong Kong flotations ("H" shares). As yet, China's "B" shares for foreign investors, listed on the Shanghai and Shenzhen exchanges, do not necessarily receive the same level of protection. For further information of developments of China's capital markets, see Chapter 6 of International Capital Markets, Developments, Prospects, and Key Policy Issues: Background Material, SM/94/141, June 8, 1994.

2/ A study by the IFC (see IFC, Emerging Markets Factbook), found that out of 22 emerging markets, only six countries have investor protection laws of internationally acceptable quality.

introduced over the last year have in large part responded to various market distortions and irregularities. From the beginning of 1994, for example, the Securities Board of India (SEBI) has introduced a series of legislative measures specifically aimed at tightened investor protection. These include regulating all transactions between clients and brokers and permitting SEBI inspection of books, accounts, and documents of debenture trusts. The SEBI has been empowered to prosecute companies whose prospectuses misrepresent details. Further plans include enforcing continual disclosure and improving transparency by moving towards screen-based trading and a globally acceptable custodial and depository service. In Malaysia, the Kuala Lumpur Stock Exchange in March 1994 introduced new minimum standards of conduct for member brokerage firms to ensure equal conditions for all clients, including providing information on market risk. Peru introduced a new insider trading law at the end of 1993 that specifically forbids the use of preferential information to replace a somewhat ill-defined and difficult to enforce code. In Chile, insider trading was specifically defined and made punishable by law in January 1994. Plans by Chile's Superintendencia de Valores y Seguros to improve market surveillance, including the expansion of electronic monitoring capacity, will help enforcement. Changes to Mexico's National Securities Law late in 1993 included much stricter legislative criteria and penalties on the misuse of insider information. Poland introduced a new securities law, effective February 1994, which among other things established strict penalties for securities offenses, including the falsifying of information in prospectuses or concealed actual data.

Emerging markets are continuing to take steps to improve their clearance and settlement procedures as well as their overall trading systems. The efficiency of such systems can help to promote rapid development of the market, and several countries are moving towards fully electronic systems. Well-developed procedures help to ensure effective surveillance and enforcement of regulatory control, promote investor confidence, and facilitate cross-border securities transactions. Chile has recently established a centralized clearing house and depository, which is expected to be fully operational for fixed income and money-market trading by mid-1994 and for equity transactions by year-end. Venezuela is presently formulating plans for a central depository. Currently, the custodial function is decentralized, with asset titles held by the transfer agent, brokerage house, custodian bank, or the final investors. Over the last year, Mexico's national securities depository (S.D. Indeval) has been authorized to provide simultaneous payment and securities delivery, as well as direct securities clearance services in ADR-related operations. These modifications are specifically aimed to provide efficient trading and liquidation, including overcoming differences in settlement periods in global markets. Having commenced electronic trading in 1991, Singapore's stock exchange is expected to have a completely electronic settlement system by mid-1994. As part of Indonesia's plans to improve settlement procedures and strengthen enforcement capabilities, Jakarta's stock exchange intends to replace manual trading with computerized trading by mid-1994, which will enable the start of electronic trading sometime in 1995. Over the last year, Hungary established a fully operational clearing house and share depository which has reduced settlement time.

b. Expanding the investor base

Over the last year, several countries have established new securities markets where previously they did not exist. At the beginning of 1994, Zambia put in place a securities regulatory regime, with oversight power invested in a Securities and Exchange Commission. This permitted the opening of the country's first stock exchange, which commenced operations in Lusaka in February. Nepal also opened its first stock exchange in January 1994, with the listing of 62 firms. Nicaragua is expected to open a securities exchange, which will be the prime vehicle for the privatization of state assets.

In an effort to allow smaller-sized companies easier access to investable funds, a number of countries have recently established second-tier markets characterized by less stringent listing and disclosure requirements. This has the benefit of providing a phased entry for these firms to eventual full public listing, and assists in the longer term effort of deepening the market where many emerging markets are characterized by a heavy concentration in only a few companies. Recent changes to Mexico's Securities Law defined a second market with diluted regulatory and disclosure requirements, and in February 1994 Brazil released draft regulations for the creation of a special over-the-counter market for smaller companies.

Over the last year many countries with advancing capital markets have increased efforts to widen the product range of available assets and to liberalize investor access. Such measures not only help to broaden the investor base, but can also channel funds toward infrastructure and housing investment. For example, Colombia recently modified rules to allow small- and medium-sized investors access to securitized bond issues. In tandem, the new legislation permitted both the state oil company and other public sector entities to issue securitized debt related to infrastructural projects. Securitization of real estate assets has also been allowed. Under Venezuela's new banking law, banks can now diversify into securities other than traditional instruments such as certificates of deposit. Thailand recently relaxed its restrictions on provident funds to enable them to invest in unsecured instruments. Similarly, Chile has permitted pension funds to invest in non-rated company shares, derivatives, and foreign securities. Securitized paper has also been expanded to include home mortgages.

The creation of domestic credit rating agencies can help to standardize and improve the quality of information provided to investors. Several countries allow foreign credit agencies to participate in joint ventures in the domestic market to help develop credit criteria that are internationally recognizable. Over the last year, a number of countries have introduced local rating agencies. Chile recently modified the role of the National Ratings Commission (NRC) to remove its ability to make its own evaluations and instead gave it oversight authority over private agencies' ratings. Peru recently set up a risk classification commission to initiate a credit rating system in line with international standards. Under the current stock market code and new legislation relating to the recently formed pension funds, all institutional investors "must operate within a series of risk rating parameters." In early 1994, Venezuela's CNV established regulations for the creation of credit risk agencies and the country's first risk classification company opened in March. Colombia also opened its first risk rating agency (under foreign ownership) in late 1993.

Several countries have liberalized access for foreign brokers to operate in domestic markets, often in partnership with domestic companies. This can have a number of virtues, essentially by providing valuable information technology, as well as credibility for possibly apprehensive foreign clients. In an effort to increase competition, 1/ Taiwan's Security and Exchange Commission has reduced the capital requirement for foreign brokerage firms in line with domestic houses. In April 1994, Thailand allowed foreign brokerage firms to own up to 49 percent of Thai securities firms. In March 1994, Russia granted the first securities license to a foreign-owned investment institution to trade and underwrite equities. Similarly, Poland is to allow foreign brokers to set up offices.

In the course of development of a market, a greater variety of instruments become available to investors, allowing them to diversify and hedge possible risks more effectively. The introduction of derivative instruments allows investors to cover their exposure. Correspondingly, several countries are introducing new regulations to allow the trading of more sophisticated instruments, including futures, options, and warrants. However, to make effective use of such instruments, markets need adequate liquidity in the underlying assets. To safeguard the integrity of the financial system, a well functioning regulatory structure and clearing and settlement system is essential. Without adequate regulatory oversight and insufficient cash liquidity, the premature introduction of such instruments potentially increases the risk of destabilizing a fledgling domestic market in tandem with undermining the banking system. 2/ Taiwan is currently drafting regulatory legislation in the final phase of a three-stage program to allow the operation of a domestic futures market with operations scheduled to begin in late 1994. Thailand has recently commissioned a feasibility study on a futures and options market, with particular regard to the necessary regulatory structure and capital adequacy requirements, as

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1/ Since allowing foreign brokers to operate in early 1993, only one full branch has in fact opened in Taiwan.

2/ For a further discussion of the risks associated with the introduction of financial derivatives to emerging capital markets, see H.J. Blommestein and M.G. Spencer The Role of Financial Institutions in the Transition to a Market Economy, IMF Working Paper WP/93/75.

well as the possible product range. Hong Kong is expected to open an options market in late 1994, with listings of individual companies as part of an on going process to open the market to financial derivatives. Likewise, in October 1993, Mexico approved the trading of inflation linked options based on government securities linked to the National Consumer Price Index. In February 1994, Venezuela issued governing regulations for the public offer of options and futures.

c. Harmonization efforts

Increasingly, countries are working towards greater international cooperation and harmonization on regulatory issues. These efforts vary largely according to the stage of development of the domestic market. For example, countries whose markets are already relatively mature see greater market integration as a way to improving their competitive position with respect to the global capital markets, 1/ while other countries see the benefits of harmonization as more importantly a means to strengthen their domestic institutions.

A recent International Organization of Securities Commissions (IOSCO) study surveyed 23 developing countries' securities regulatory commissions and found that nearly all countries surveyed are making efforts towards harmonizing procedures, regulatory requirements, and accounting standards. 2/ One of the key stages identified in the "internationalization" process is seen to be the removal of restrictions on the sale of local securities abroad and foreign securities in local markets. Three interconnected recommendations were made for IOSCO's development committee: (i) to promote and provide permanent access of members to the information on changes and improvements achieved internationally regarding regulation procedures and accounting standards; (ii) to stimulate countries' interest in the "internationalization" process, encouraged in part by establishing a working group to assess the restrictions on placement of local securities in foreign markets and foreign securities in local markets; and (iii) to organize regional groups to provide guidelines to overcome difficulties faced by emerging markets.

A number of countries in Latin America have passed legislation over the last year providing for the approval of cross-border listings with other countries within the region. The Mercosur group of countries (Argentina, Brazil, Paraguay, and Uruguay) by early 1994 had passed legislation allowing for the local trading of stocks and bonds of the other respective countries.

1/ For further information on the integration of capital markets in developing countries with those in the rest of the world, see M. Goldstein and M. Mussa, The Integration of World Capital Markets, IMF Working Paper WP/93/95.

2/ Report of the Development Committee on Internationalization, International Organization of Securities Commissions (IOSCO) Development Committee Report, October 1993.

Colombia also recently approved the listing of foreign companies on the domestic market, provided they meet certain listing and disclosure requirements, and allowed for domestic companies to make public offerings abroad. Separately, Argentina is currently considering access of Mexican companies to its local capital market, and approval is expected sometime in 1994. Mexico's new National Securities Market Law established an international trading section on the Mexican exchange and allowed the recently created central depository institute INDEVAL to serve as a custodian for foreign securities, which has enabled brokers to complete transactions in foreign securities for their clients.

In an effort to promote inter-regional investment and facilitate privatization, the stock exchanges of Bahrain, Jordan, Kuwait, Oman, Morocco, and Tunisia are expected to be linked by September 1994 with the help of the Arab Monetary Fund.

The Hong Kong Stock Exchange intends to focus on attracting equity placements by foreign countries (particularly China) as it considers the local market to be largely mature. At present, listing requirements are oriented toward Hong Kong corporate law, which may need to be revised in order to attract non-Hong Kong based issuers.

Countries have also agreed on memoranda of understanding (MOU) to promote information sharing and to serve as a first step towards market integration. In Latin America, all countries have signed memoranda of understanding with at least one other country, usually a regional partner. In March 1994, Venezuelan and Colombian securities commissions signed a MOU intended to formalize cooperation on the exchange of information about changes in regulatory and judicial issues, technical assistance, and investor protection, as well as combating money laundering. In early 1994, the London Stock Exchange and the Shanghai Securities Exchange signed a MOU to promote technical cooperation and to lay the foundation for joint listing and trading of securities. Brazil's Bolsa de Mercadorias and Futuros and the New York Mercantile exchange signed a MOU to share information on market regulatory and technical issues.

2. Regulatory changes in creditor countries

a. Securities markets

In November 1993, the U.S. Securities and Exchange Commission (SEC) voted to adopt measures aimed at expanding, as well as simplifying, foreign access to the U.S. market, which will also help to reduce the costs of listing. The new measures include recognition of international accounting standards, easier registration procedures, and reducing the required reporting history from three years to 12 months. The new measures also narrow the size requirement for a public float from US$300 million to US$75 million.

Over the last year, the SEC has assigned "recognized custodian status" to a number of the more developed of the emerging markets. This allows the foreign custodian service to handle securities deposited by American investors, which simplifies clearance and settlement procedures. To a large extent, this recognition reflects the improvements in the institutional environment in developing countries. The SEC recognized the custodian services provided by the Stock Exchange of Thailand and the Mexican depository Indeval as eligible foreign custodians.

In a similar vein, during the latter part of last year, the SEC accorded "ready market status" to Mexican Government debt instruments denominated in pesos. The instruments include treasury certificates (cetes), inflation-adjusted bonds (adjustabonos), and long-term instruments (bondes). This modification allows U.S. securities firms to assign only a 7 percent capital charge against the asset, in contrast to the 100 percent required previously.

The Australian Stock Exchange (ASE) proposes to establish a separate "Asian market" trading board within the year to attract listings from China and other Asian countries. At present around 14 Chinese companies have expressed an interest along with a number of firms from Korea, Malaysia, and Singapore. It is expected that by the end of 1994 up to 10 companies could be listed. Asian companies intending to list would have to comply with the same requirements as those of domestic firms, including abiding by international auditing standards and submitting half-yearly reports.

b. Provisioning standards

Over the last several years, nearly all creditor countries have modified their provisioning requirements for commercial banks against developing country loans. 1/ Although this trend in part reflects the stronger capitalization of creditor banks, it is also based on the improvement in creditworthiness of many developing countries made possible by the pursuance of sound macroeconomic policies and the restructuring of commercial bank debt, as well as the restoration of access by many developing countries to the international capital markets. Provisioning requirements now tend to be much more responsive to variations in country creditworthiness. For example, changes introduced by Belgium and Switzerland in 1993 replaced the flat cover ratios of 60 percent and 65 percent applied, respectively, by a graded system determined by the country's debt servicing capacity according to a range of macroeconomic and political factors.

1/ For further information on regulatory practices in creditor countries as well as procedures by which developing countries may "graduate" from the need for creditor banks to make provisions, see Private Market Financing for Developing Countries, SM/92/162, August 14, 1992 and SM/93/185, August 18, 1993.

The settlement and recovery of developing country assets has allowed the release of excess provisions to be reallocated, and in most countries average provisioning to developing country exposure by commercial banks has declined. In Japan, where provisioning is considerably lower by international standards, the reduction in developing country exposure has helped to raise the average level of provisioning. An increase in provisioning by German banks over the last few years reflects proportionately higher exposure to Eastern Europe and the republics of the former Soviet Union (Table 25).

V. Foreign Direct Investment

Along with the rise in portfolio capital inflows, developing countries have experienced a surge in foreign direct investment inflows during the 1990s. Also like portfolio capital, the increased inflow of foreign direct investment has gone to a relatively small number of countries in Latin America and Asia. The sharp rise in these inflows may be in part explained by factors that are likely to exert an influence over a limited period of time, such as the privatization of government assets or a rebalancing of asset holdings in response to economic reforms in developing countries. Although foreign direct investment is often perceived as a relatively stable source of financing, a review of the experiences in the 1980s of a sample of highly indebted developing countries suggests that, when balance of payments difficulties are encountered, the net impact of all transactions associated with foreign direct investment (including current and capital account) may serve to exacerbate the external imbalance.

1. Recent trends in direct investment

Since the mid-1970s, when only modest capital flows were recorded, net inflows of foreign direct investment to developing countries have risen rapidly. 1/ There have been, however, substantial fluctuations in these net inflows around this upward trend (Table 26 and Chart 16). In particular, developing countries have experienced a surge in foreign direct investment inflows since 1990. Over the period 1991-93, cumulative net inflows amounted to US$134 billion. In real terms, net foreign direct investment flows to developing countries in the early 1990s were almost two and a half times their average level in the 1980s.

The surge in foreign direct investment is notable not only for its size, but its coincidence with the growth of other private capital flows. The rate of increase in net foreign direct investment to developing

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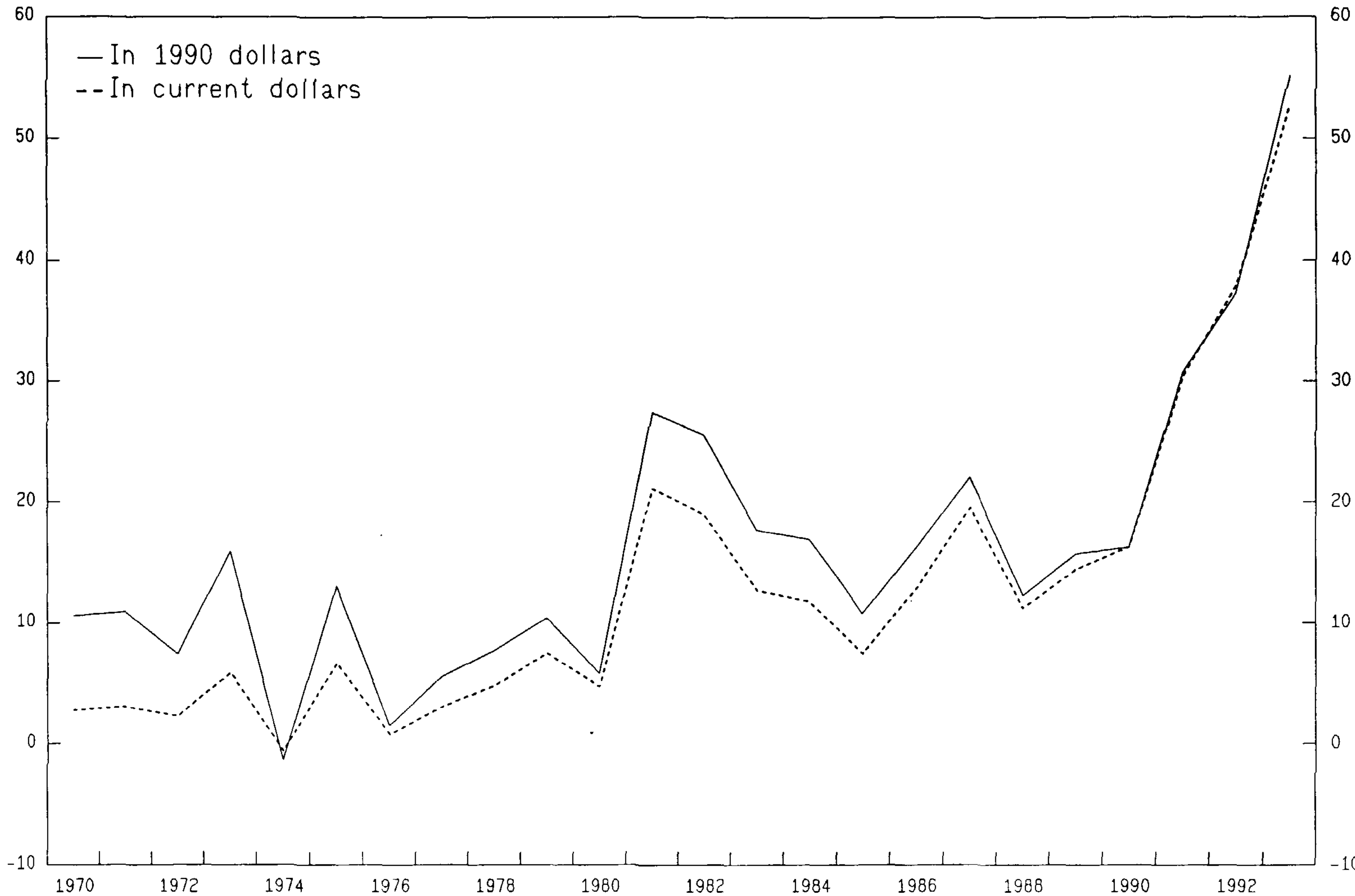
1/ Net foreign direct investment inflows are defined as foreign direct investment capital inflows less the capital outflows for direct investments abroad by domestic residents.

CHART 16

NET FOREIGN DIRECT INVESTMENT TO DEVELOPING COUNTRIES, 1970-93

(In billions of U.S. dollars)



Source: World Economic Outlook.

Table 25. Provisioning Regulations Against Claims on Developing Countries

Country	Provisioning Regulations	Process for Graduation	Actual Range of Provisioning 1/ (End-1992)	Trade/Interbank Claims Guaranteed OECD Export Credit Agency	Collateralized Claims 2/	Sub-Participation of Official Agency/ IFI's	Country Discrimination 3/
Belgium	Mandatory: 20, 30, 50 and 60 percent on 4 groups of countries	Provisioning levels reviewed semi-annually	55-60 percent	Trade credits to limit of 12 months exposure base (provisioning required on nonperforming trade credits with arrears of more than six months)	That part of the claim which is legally secured by a cash deposit, or securities issued is exempted	Participation in "B" loans of the IFC and in cofinancing transactions of the EBRD are exempted	Yes
Canada	Mandatory: Minimum 35 percent to 46 countries	Country removed after lapse of 5 years since previous rescheduling 4/	50-63 percent 5/	No specific guidance on allocation of provisioning by type of credit	Exclusion for OECD government securities used as collateral on principal 6/	No specific guidance	No
France	Mandatory: Average 55 percent to about 80 countries 7/	Country considered for removal from basket if banks consistently reduce provisioning for the country	37-68 percent	Exposure base includes short-term interbank claims but excludes short-term trade credits and those guaranteed by OECD export credit agencies	For collateralized principal, provisioning considered unwarranted	On a selective basis, some loans with sub-participation are excluded for provisioning purposes	No
Germany	Voluntary 8/	Not applicable	73-90 percent	Case by case 9/	Case by case 9/	Case by case 9/	Yes 9/
Japan	Indicative: 30 percent to undisclosed basket of countries 10/	Country removed from basket after 5 years have lapsed since previous rescheduling	30-35 percent	No specific guidance on allocation of provisioning by type of credit	Present value of collateral on interest or principal taken into consideration	No specific guidance	No
Netherlands	Mandatory: 10-90 percent against approximately 45 countries	Provisioning levels reviewed semi-annually	60 percent	Exposure base excludes claims for which a guarantee has been obtained	Certain collateralized credit is excluded	Some cofinancing claims with certain multilateral and regional development banks excluded	Yes
Switzerland	Indicative: 5-100 percent against approximately 90 countries	...	60-90 percent	Banks may individually decide on the level of provisions for short-term credit	For collateralized principal provisioning considered unwarranted	Case by case	Yes
United Kingdom	Indicative: Bank of England guideline; 5-100 percent on approximately 55 countries 11/	The matrix allows for regular re-assessment which can lead to lower recommended provisioning range	49-80 percent	If a credit is considered to have a higher probability of repayment, notably in the case of short-term credits and interbank claims, these are treated more favorably or can be excluded altogether from the calculated exposure base	Case by case	Some loans with sub-participation are excluded for provisioning purposes	Yes
United States	Indicative/Mandatory: On loans that are evaluated value impaired	The ICERC meets 3 times a year to review country rankings and status of value-impaired countries	24-60 percent	Provisioning is required on all loans except performing trade and interbank credits	Collateralized principal is factored into calculation for reserve requirement	Considered on a case-by-case basis	Yes

Sources: National Authorities; press reports; and World Bank Technical Paper No. 158.

Note: *ICERC* = *Interagency Country Exposure Review Committee*
IFC = International Finance Corporation
EBRD = European Bank for Reconstruction and Development

1/ In percent of relevant exposure; numbers indicate range for major banks.
2/ Indicates under what circumstances the assessment of exposure is adjusted for collateralized claims for provisioning purposes.
3/ Indicates which regulatory authorities assess the exposure base by individual country performance.
4/ The time period can be reduced to two years if the country can demonstrate an ability to raise new funds on a voluntary unsecured basis on the international capital markets.
5/ Based on end-1993 data.
6/ A one-for-one adjustment is made (i.e., if collateral only partially covers asset, the uncovered portion is factored into the calculation for total exposure requiring provisioning).
7/ Mandatory target is set by industry average of previous fiscal year.
8/ Adequacy judged against industry average.
9/ Banks individually determine the requirement for provisions in liaison with their external auditors. In this context, allowance can be made by credit type and by country risk.
10/ Until March 1991, the 25 percent level represented a maximum statutory cap. Although this is no longer the case, level is set to provide an indicative guideline.
11/ The Bank of England does not instruct provisioning against a set list of countries; this is left up to individual banks to determine using the Bank's matrix criteria.

Table 26. Net Foreign Direct Investment Flows to Developing Countries, 1988-1993

(In billions of U.S. dollars)

	1988	1989	1990	1991	1992	Est. 1993	Est. 1991-93
Developing countries 1/	19.2	21.5	23.5	33.8	44.4	55.5	134.0
Africa	1.1	2.8	1.2	1.2	1.1	1.5	3.8
Algeria	--	--	--	-0.1	--	0.1	--
Botswana	--	0.1	0.1	--	0.1	0.1	0.2
Cameroon	--	--	--	--	0.1	0.1	0.2
Gabon	0.4	--	-0.1	-0.2	--	-0.3	-0.5
Morocco	0.1	0.2	0.2	0.4	0.5	0.5	1.4
Nigeria	0.4	2.4	0.6	0.6	0.8	0.6	2.0
South Africa	0.1	-0.4	-0.1	--	-0.9	--	-0.9
Tunisia	0.1	0.1	0.2	0.2	0.2	0.2	0.6
Other	--	0.2	0.3	0.3	0.2	0.2	0.7
Asia	10.5	10.7	13.8	15.4	20.6	30.3	66.3
China	2.3	2.6	2.7	3.7	7.1	17.0	27.8
India	0.3	0.3	0.4	0.2	0.3	0.6	1.1
Indonesia	0.6	0.7	1.2	1.5	1.7	2.0	5.2
Korea	0.7	0.5	-0.1	-0.2	-0.3	-0.3	-0.8
Malaysia	0.7	1.7	2.3	4.0	4.5	4.3	12.8
Myanmar	--	--	0.2	0.2	0.1	0.3	0.6
Pakistan	0.2	0.2	0.2	0.3	0.3	0.3	0.9
Papua New Guinea	0.1	0.2	0.1	0.2	0.2	0.1	0.5
Philippines	1.0	0.8	0.5	0.7	0.7	0.6	2.0
Singapore	3.5	1.9	3.9	3.2	4.3	4.0	11.5
Sri Lanka	--	--	--	--	--	0.1	0.1
Thailand	1.0	1.7	2.2	1.4	1.5	1.2	4.1
Other	--	0.1	0.1	0.1	0.1	0.1	0.3
Europe	0.9	0.9	0.8	3.2	5.1	6.7	15.0
Former U.S.S.R.	0.5	-0.3	-0.7	--	1.1	1.8	2.9
Former Czechoslovakia	--	0.3	0.2	0.6	1.1	0.9	2.6
Hungary	--	0.2	0.3	1.5	1.5	2.3	5.3
Poland	--	--	--	0.1	0.3	0.6	1.0
Romania	--	--	--	--	0.1	0.1	0.2
Turkey	0.4	0.7	0.7	0.8	0.8	0.9	2.5
Other	--	0.1	0.3	0.2	0.2	0.1	0.5
Latin America	6.9	6.4	7.1	10.9	14.2	12.8	37.9
Argentina	1.1	1.0	1.9	2.4	4.2	3.3	9.9
Bolivia	--	--	--	0.1	0.1	0.1	0.3
Brazil	2.9	0.7	0.2	--	1.3	--	1.3
Chile	0.1	0.3	0.6	0.5	0.6	1.4	2.5
Colombia	0.2	0.5	0.5	0.4	0.7	0.8	1.9
Costa Rica	0.1	0.1	0.1	0.2	0.2	0.1	0.5
Dominican Republic	0.1	0.2	0.1	0.1	0.2	0.1	0.4
Ecuador	0.1	0.1	0.1	0.1	0.1	0.5	0.7
Guatemala	0.1	0.1	0.1	0.1	0.1	0.1	0.3
Jamaica	--	0.1	0.1	0.1	0.1	0.1	0.3
Mexico	1.7	2.6	2.5	4.8	5.4	4.9	15.1
Paraguay	--	--	0.1	0.1	0.1	0.1	0.3
Peru	--	0.1	--	0.1	0.1	0.5	0.7
Trinidad and Tobago	0.1	0.1	0.1	0.2	0.2	0.3	0.7
Venezuela	0.1	0.2	0.5	1.6	0.5	0.1	2.2
Other	0.2	0.3	0.2	0.3	0.3	0.3	0.9
Middle East	-0.2	0.7	0.6	3.1	3.4	4.5	11.0
Egypt	1.1	1.2	0.7	0.3	0.4	0.5	1.2
United Arab Emirates	0.2	0.2	0.2	0.2	0.2	0.2	0.6
Yemen, Republic of	-0.3	-0.2	-0.2	0.3	0.7	0.7	1.7
Other	-1.2	-0.5	-0.1	2.3	2.1	3.0	7.4

Source: World Economic Outlook.

1/ Taiwan Province of China is excluded from this group of countries because it has become a significant provider of foreign direct investment in recent years.

countries since 1990 has been comparable to that seen for portfolio flows. The simultaneous upturn in both foreign direct investment and portfolio inflows is in sharp contrast to previous experiences of private capital surges to developing countries. For example, bond financing was dominant in the 1920s and 1930s, but the defaults during the interwar period gave way to foreign direct investment being the primary form of capital inflows in the first 20 years of the postwar period. The surge in portfolio finance, and specifically bank lending, which began in the 1960s and peaked in the early 1980s, was accompanied by a steep decline in foreign direct investment in developing countries. 1/

Many developing countries have seen an increase in net inflows of foreign direct investment but, as in past episodes when such inflows were sharply higher, the latest upturn has been concentrated in a relatively few countries. Throughout the 1970s and 1980s, only a handful of countries received most of the flows of foreign direct investment. As a result, foreign direct investment tended to be far more geographically concentrated than the stock of debt claims. For example, three countries--Brazil, Indonesia, and Mexico--accounted for over 60 percent of all foreign direct investment flows to developing countries between 1971-81. 2/ At the end of the 1980s, 63 percent of the total stock of foreign direct investment in developing countries was held in five countries--Brazil, China, Egypt, Malaysia, and Mexico--while the five developing countries with the most external debt--Argentina, Brazil, India, Indonesia, and Mexico--accounted for only 33 percent of the total stock of debt. 3/

Between 1990 and 1993, the bulk of foreign direct investment flows went to two regions: Latin America and Asia. In Latin America, the total inflow doubled after 1990 reaching US$14 billion in 1992, before declining modestly to around US$13 billion in 1993. Over this period, average annual inflows were two to three times higher than in the 1980s. Two-thirds of the total foreign direct investment inflow to Latin America during the period went to Mexico and Argentina, with Chile and Venezuela (along with Brazil and Colombia) accounting for a large share of the remainder. Developing countries in Asia received an estimated US$66 billion in foreign direct investment inflows in 1991-93, roughly half of the total flow to developing countries. China was by far the largest recipient, accounting for more than 40 percent of the inflows to Asia. Malaysia and Singapore were also major recipients of foreign direct investment, but at less than half of the level of flows to China. In the case of Malaysia, this represented a sizeable

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1/ See E. Cardoso and R. Dornbusch, "Foreign Private Capital Flows" in H. Chenery and T.N. Srinivasan (eds.), Handbook of Development Economics, Vol. 2, 1989.

2/ Sebastian Edwards, "Capital Flows, Foreign Direct Investment, and Debt-Equity Swaps in Developing Countries," NBER Working Paper No. 3497, 1990.

3/ S. Claessens, "Alternate Forms of External Finance: A Survey," World Bank Working Paper No. 812, 1991.

pickup in inflows, while for Singapore, it represented a relatively steady inflow of foreign direct investment. Thailand and Indonesia also saw sizeable foreign direct investment inflows over the period. Foreign direct investment inflows to the economies in transition in Central and Eastern Europe have risen sharply over the period 1991-93, amounting to around 10 percent of total foreign direct investment inflows to developing countries. Annual flows of foreign direct investment to Africa were largely unchanged in 1991-93, with almost all of these flows going to Nigeria and South Africa.

The nature of and motivation for foreign direct investment suggest that longer-term considerations should play a role in explaining these flows, and as a result, they might be expected to exhibit greater stability than other private capital flows. 1/ Moreover, there are factors at work in the global economy--growing trade, greater market homogeneity and improved communications technology, inter alia--that would provide a long-term impetus for increased flows of foreign direct investment. 2/ As noted above, foreign direct investment inflows to developing countries have exhibited an upward trend since the mid-1970s, but there has been substantial variation around this trend. In particular, the recent surge in foreign direct investment inflows may be in part explained by a number of factors that can be expected to have an impact over a limited period of time.

Far-reaching economic reforms--including the removal of legal restrictions on capital movements and on nonresident holdings of domestic assets--have eliminated many of the barriers that formerly acted to deter foreign direct investment. At the same time, the alleviation of debt burdens has sharply lessened the risks to all would-be investors. 3/ The response of foreign direct investment to these changes may to an extent represent a stock adjustment--implying a one-time rebalancing of the pattern of corporate asset holdings in response to policy changes in host countries.

Foreign direct investment related to privatization has also been an important factor in the recent upturn, particularly in flows to Latin America. The potential for further foreign direct investment inflows from new privatizations will inevitably depend on the size of the remaining stock of public sector assets that have been earmarked for sale. Thus, the pace of these inflows can be expected to slow as countries near the end of their

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1/ See Saul Lizondo, "Foreign Direct Investment," in Determinants and Consequences of International Capital Flows, IMF Occasional Paper No. 77, 1991, for a survey of the determinants of direct foreign investment.

2/ See Edward Graham and Paul R. Krugman, "The Surge in Foreign Direct Investment in the 1980s" in K. Froot (ed.) Foreign Direct Investment, 1993.

3/ Michael Dooley, "An Analysis of the Debt Crisis," IMF Working Paper, WP/86/14, 1986.

privatization programs. There may be further inflows related to the restructuring of newly-privatized enterprises, but these are not likely to continue on the scale of the initial inflows from privatization.

Increased domestic growth in the largest recipient countries has also been an important factor in the surge in foreign direct investment. Domestic growth not only provides foreign firms with enhanced investment opportunities, it also provides a pool of funds for reinvestment by generating increases in the earnings of their domestic affiliates. In part because enterprises typically view this internally generated capital as cheaper than funds raised in the market, reinvested earnings account for a large proportion of total foreign direct investment capital flows. Moreover, the reinvested earnings of companies affiliated with foreign firms appear to move procyclically; a slowdown in economic growth would most likely restrain earnings growth, reducing reinvested earnings and total foreign direct investment inflows.

2. The behavior of foreign direct investment transactions during a crisis

Foreign direct investment capital flows have been viewed as potentially providing a more stable form of financing for a country's development, as well as a substitute for reduced flows of commercial bank financing to developing countries. 1/ While foreign direct investment flows show considerable variation on an annual basis, reflecting a variety of institutional and economic factors, an important question relates to the behavior of these flows when a country encounters balance of payments difficulties. 2/ It is widely argued that the motivations for foreign direct investment--entailing a longer-term commitment on the part of the investing enterprise, together with the substantial costs of liquidating an affiliate's fixed assets--would result in capital flows responding less to adverse short-run macroeconomic developments.

1/ See, for example, David Goldsborough, "Investment Trends and Prospects: The Link with Bank Lending" in Investing in Development. New Roles for Private Capital, ed. by T. Moran (1986) and Cardoso and Dornbusch (1989) for discussion of these issues.

2/ In S. Claessens, M. Dooley, and A. Warner, "Portfolio Capital Flows: Hot or Cool?" World Bank Discussion Paper, 1993, the authors find, for example, that broadly speaking foreign investment is no less volatile on a year-on-year basis for a given country than other capital flows.

The stability of foreign direct investment capital flows during crisis periods would appear to be largely confirmed by looking at the data on these flows in the balance of payments accounts reported to the Fund. 1/ Chart 17 shows the composition of total net private capital flows to six heavily indebted countries which experienced external payments difficulties resulting in arrears or rescheduling during the 1980s. 2/ The data (also shown in Table 27) are expressed in real terms, deflating U.S. dollar values by an index of the unit price of exports for industrial countries. While small in magnitude relative to other private short- and long-term flows, these data suggest that net foreign direct investment capital flows were relatively stable throughout the debt crisis. After rising substantially in the late 1970s, foreign direct investment capital flows returned to previous levels in the 1980s. Throughout the period, inflows of foreign direct investment capital were recorded, while there was a shift to sizable outflows of other forms of private capital in the mid-1980s.

Focusing solely on recorded capital flows, however, may not fully capture the influence of foreign direct investment on a country's external position. Whether foreign direct investment contributes to or alleviates a balance of payments "shock" depends on the behavior of the net flow resulting from all transactions (both current and capital account) between a domestic affiliate and its foreign parent. Conceptually, all earnings from affiliated companies are assumed to accrue to the foreign parents and are included in current account transactions; the portion of earnings that is reinvested by foreign parents in their affiliates is recorded as an inflow in the host country's capital account. Thus, the net impact of foreign direct investment transactions is measured by the associated capital inflows (comprising both reinvested earnings and "new" investment flows) less total earnings of foreign-owned companies. There is an a priori reason to expect that, in addition to the stability of inflows through the capital account, foreign direct investment may also exert a stabilizing influence during a crisis through its effects on the current account; current account outflows in the form of repatriated earnings may decline during a crisis, since the shocks which induced the crisis are likely to reduce the total earnings of affiliated companies.

To fully capture the influence of foreign direct investment transactions on a country's external position, it is important that the data accurately record total earnings and total capital flows (i.e., reinvested

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1/ These data conceptually include reinvested earnings of domestic affiliates of foreign firms. In practice, however, the recording of reinvested earnings is incomplete in the data for many developing countries. Foreign direct investment statistics are usually compiled by the central bank using actual cross-border flows, and thus, generally fail to adequately capture the reinvested portion of domestic affiliates' earnings, unless these latter data are collected separately by detailed surveys of affiliated companies.

2/ Argentina, Brazil, Chile, Mexico, the Philippines, and Venezuela.

Table 27. Foreign Direct Investment and the Debt Crisis 1/

(In billions of 1985 U.S. dollars)

	1970-75	1976-82	1983-87	1988-92
Balance of payments measures				
Total private capital, net 2/	7.7	12.0	-19.8	0.1
Net foreign direct investment	2.2	4.0	2.3	5.4
U.S. data				
Direct foreign investment from the U.S.	1.4	1.8	0.1	3.1

Sources: International Financial Statistics; World Economic Outlook; and U.S. Bureau of Economic Analysis, Survey of Current Business.

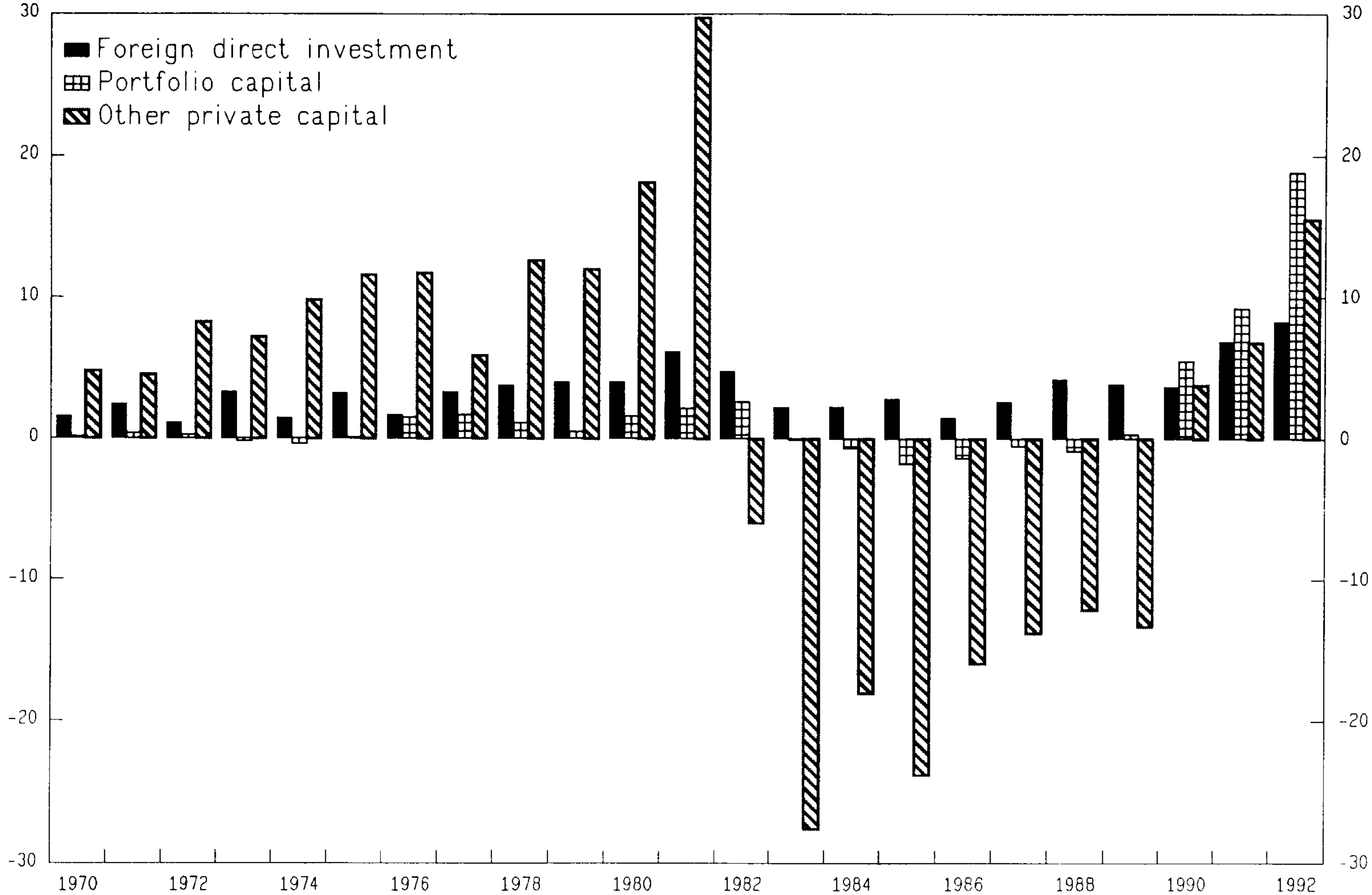
1/ Annual average flows in U.S. dollars deflated by an index of the unit value of exports for industrial countries. Countries included are Argentina, Brazil, Chile, Mexico, The Philippines, and Venezuela.

2/ Excludes errors and omissions.

CHART 17

COMPOSITION OF NET PRIVATE CAPITAL FLOWS, 1970-92 1/

(In billions of 1985 U.S. dollars)



Sources: International Financial Statistics, World Economic Outlook; and staff estimates.
1/ Argentina, Brazil, Chile, Mexico, the Philippines, and Venezuela. Exludes errors and omissions.

earnings are fully accounted for). Given uncertainties about the coverage of the balance of payments data reported by many countries, U.S. data on U.S. direct investment abroad have been used to examine the overall balance of payments effects of foreign direct investment transactions for the six heavily indebted countries referred to above. 1/ While the U.S. data capture only the activity of U.S. firms, they have the advantage of including all components of direct investment and, thus, may better capture short-run changes in the behavior of foreign investors. The data are also likely to be broadly representative, owing to the fact that U.S. companies are the dominant foreign investors in the group of six heavily indebted developing countries examined here, accounting for roughly half of all foreign direct investment inflows.

Chart 18 shows that for U.S. affiliates, total earnings did fall when the external payments difficulties of the host nations became more severe. However, these affiliates responded to the crisis by reducing reinvested earnings by more than the decline in total earnings. Thus, repatriated earnings remained relatively stable and actually increasing through the period. In 1983, repatriated earnings exceeded income, generating negative reinvested earnings (i.e., a reduction in the assets of the U.S. affiliates in these countries).

The sharp drop in reinvested earnings during the crisis was accompanied by a decline in flows of other foreign direct investment capital to the six countries in the U.S. data. With the more complete coverage of reinvested earnings in the U.S. data, it is apparent that there was substantially more volatility in foreign direct investment capital inflows during the debt crisis than is suggested by the balance of payments data for the six countries. Moreover, the foreign direct investment capital inflows shown in the U.S. data appear to have behaved in a manner more consistent with domestic investment as a whole in the host countries. For the group of countries surveyed, domestic investment fell from 24 percent of GDP in 1981 to 18 percent of GDP in 1985, reflecting poor output performance, low profitability, and an unstable financial environment.

The net effect on the balance of payments of the transactions between U.S. affiliates in these six countries and their parents is shown in Charts 18 and 19. Net resource transfers from affiliates to their U.S. parents increased sharply beginning in 1983 and continued until 1991. Over the period 1983-89, these transfers averaged about 7 percent per year of the total stock of U.S. direct investment in the six countries.

1/ Bureau of Economic Analysis, U.S. Department of Commerce, Survey of Current Business. All data have been converted into 1985 U.S. dollars using an index of the unit value of industrial country exports. Earnings data and repatriated earnings data are expressed net of withholding taxes and include interest received from loans. Beginning in 1981, earnings and reinvested earnings data exclude increases in the dollar value of stocks either through exchange rate changes or through capital gains or losses.

This analysis contrasts with the perception that direct investment flows may help stabilize the balance of payments during a crisis. The persistence of large net resource transfers associated with foreign direct investment out of the six countries sampled here may be related to the debt servicing difficulties these countries encountered. In common with all other external creditors, direct investors faced the risk that the unallocated loss implied by these debt service difficulties could fall upon them, and they appear to have been reluctant to commit to new investment until expected losses to creditors declined, as signalled by increases in the secondary market value of debt. 1/ Indeed, the recent surge in direct investment inflows into these countries has largely corresponded with a return to creditworthiness and renewed access to foreign capital markets in general.

VI. Historical Experience with Bond Financing to Developing Countries

As developing countries have re-established access to international capital markets over the last five years, bond placements have accounted for a substantial portion of the funds raised. Historically, bonds were the predominant means by which countries raised financing internationally. Only during the 1970s did bank lending play a dominant role. In order to put recent developments in some perspective, the experiences of developing countries during the last major wave of bond financing in the early part of this century and during the 1970s are reviewed.

1. Experience in the early 1900s

a. Bond financing flows

A wide range of countries engaged in foreign borrowing through the late 1930s. The regions with the largest gross international obligations in 1938 were North America and Asia; Eastern Europe was also an external debtor mainly on account of sovereign obligations. The United States, however, after World War I became a net creditor, and during the period after 1920 and before the U.S. stock market crash in 1929, it was a major source of funds, especially for borrowers in Latin America. In this period, net U.S. purchases of foreign securities amounted to nearly US$4.5 billion (equivalent to roughly 1/2 percent of GNP). 2/ Latin American obligations accounted for up to one quarter of new bond issues floated in the United States by foreign entities in the 1920s. The principal borrowers were the

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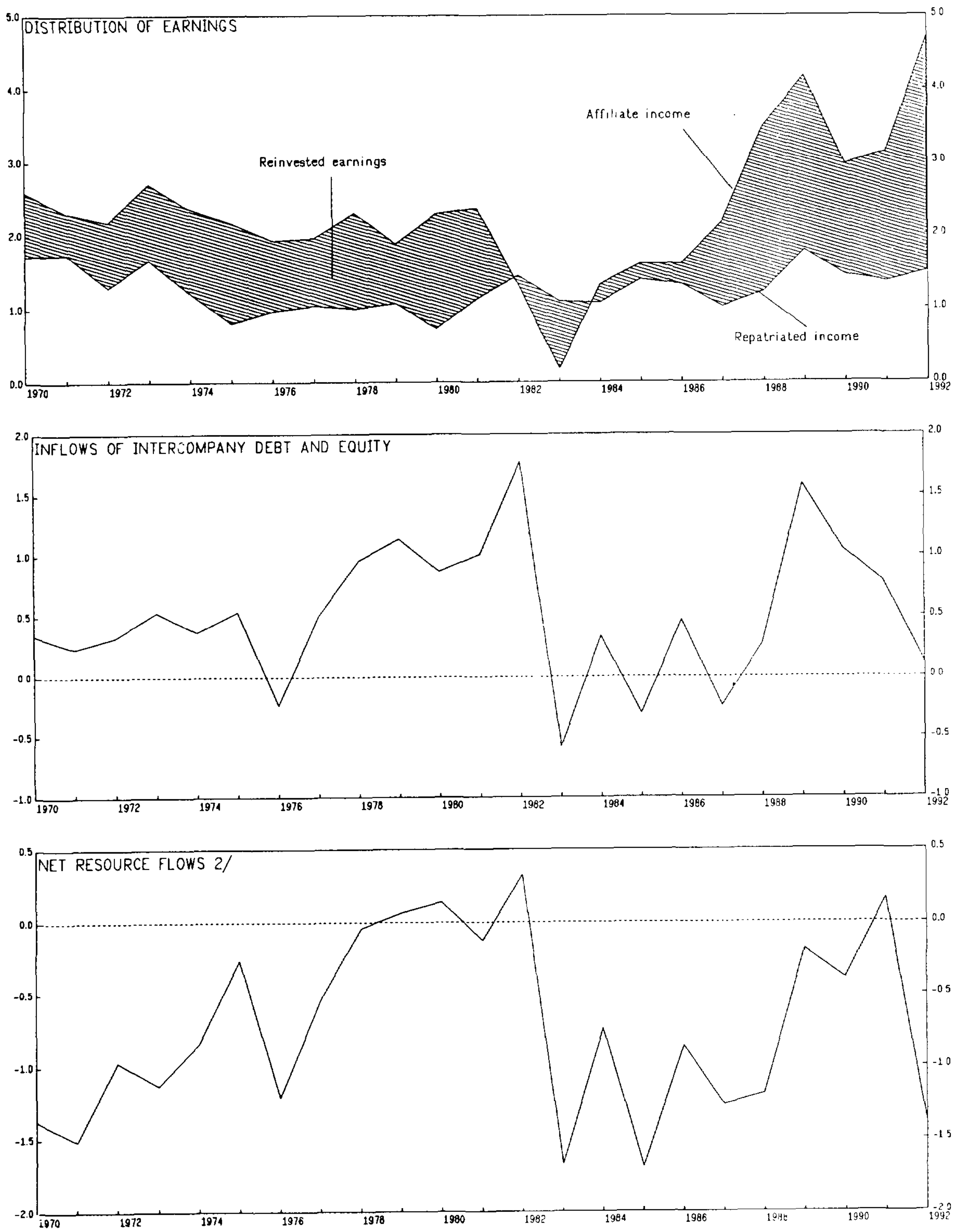
1/ See Dooley (1986).

2/ Office of Business Economics, U.S. Department of Commerce, Balance of Payments, 1963. During 1921-28, gross purchases of foreign securities were US$6.3 billion (3/4 percent of GNP).

CHART 18

CURRENT AND CAPITAL ACCOUNT FLOWS OF U.S. AFFILIATES, 1970-92 1/

(In billions of 1985 U.S. dollars)



Sources: U.S. Survey of Current Business; and staff estimates.

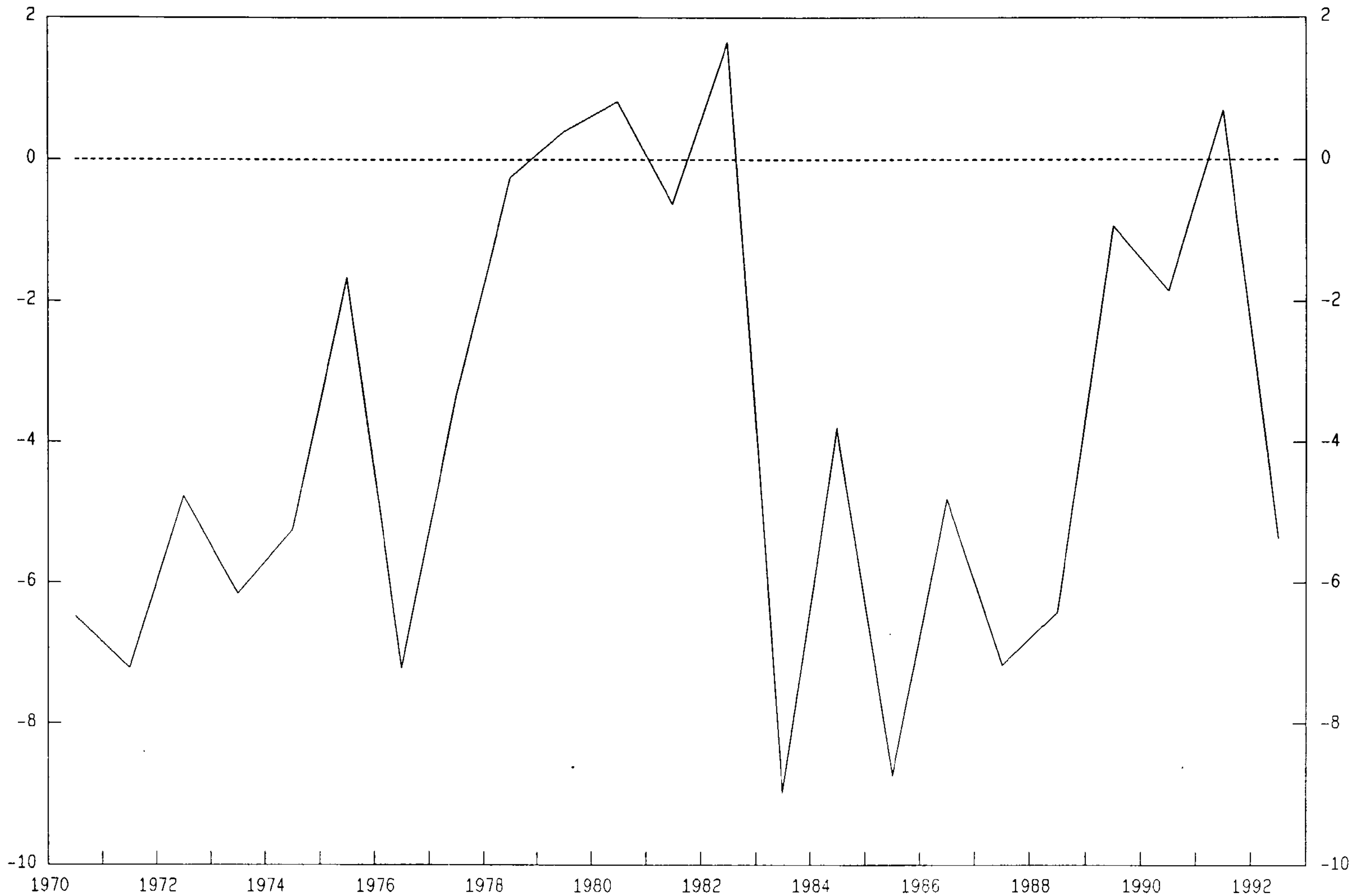
1/ Argentina, Brazil, Chile, Mexico, the Philippines, and Venezuela.

2/ Equals inflows of intercompany debt and equity plus reinvested earnings minus income.

CHART 19

NET RESOURCE FLOWS FROM U.S. FOREIGN INVESTMENT, 1970-92 1/

(In percent of stock)



Sources: U.S Survey of Current Business.

1/ Foreign direct investment inflows by U.S. affiliates minus income of U.S. affiliates for Argentina, Brazil, Chile, Mexico, the Philippines, and Venezuela.

national governments of the major countries, including Argentina, Brazil, and Chile. Between 1920 and 1929, Latin American entities issued US$2.2 billion in bonds world-wide, of which US$1.3 billion was placed by sovereigns. 1/

Countries issued bonds abroad to finance railroad and road building, the cost of wars or reconstruction, or simply to support their international reserves in the face of confidence crises during domestic upheavals (e.g., Mexico in 1911). Investment houses often guaranteed the solvency of the issuer, and countries at times also enhanced the bonds through various types of collateral such as revenues from railroads, tobacco, or other industries, and assets like gold or other commodities (e.g., a 1922 Brazilian bond was backed by coffee). In some cases bondholders assumed the administration of pledged revenues, as was the case in Nicaragua where creditors assumed the management of the country's steamship and railroad lines under the terms of a March 1912 bond. 2/

Developing country bonds offered higher returns than bonds issued in the investors' home country, with maturities often in the 20-30 year range--similar to maturities on domestic bonds. Latin America's dollar bonds issued in the 1920s, for example, had on average yields generally above those of industrial country public entities and corporate bonds. The average yield at the time of issue (during the 1920s) on national and nationally guaranteed dollar bonds ranged from 6.2 percent (Argentina) to 7.6 percent (Bolivia). By comparison, Canada issued 40 year Alberta and Vancouver provincial bonds in 1927 and 1928 yielding 4 1/2 percent. Moreover, the average yield for five major Latin American countries taken together fluctuated from 8 to 99 percent basis points above that on U.S. low-grade (Baa) corporate bonds, with the exception of Argentine bonds in 1923-24 which yielded less than the Baa rate. 3/

b. Payments difficulties in the 1930s

A steady deterioration in the terms of trade of primary commodity exports during the 1920s and a contraction in world trade in the later part of the decade and into the 1930s combined with the sharp rise in foreign borrowing during the 1920s to leave a number of developing countries vulnerable to external shocks. Thus, the world-wide depression of the 1930s produced severe financial problems for these countries and resulted in a number of partial or total defaults on foreign bonds.

1/ See E. Jorgensen and Sachs J. (1989), "Default and Renegotiation of Latin American Foreign Bonds in the Interwar Period," in B. Eichengreen and Lindert P. (eds), The International Debt Crisis in Historical Perspective, Cambridge: The MIT Press.

2/ See E.M. Borchard, State Insolvency and Foreign Bondholders, New York and London: Garland Publishing, 1983.

3/ Jorgensen and Sachs (1989).

These defaults were generally settled through negotiations between the debtor countries and representatives of the bondholders. To deal with debt servicing problems, the British Corporation of Foreign Bondholders (BCFB) had been established in 1868. In 1933, a similar organization, the Foreign Bondholders Protective Council (FBPC), was set up in the United States. Debtor countries, however, did not always recognize the formal committees as representing the interests of all bondholders.

Settlement agreements could be temporary or permanent, based on judgments regarding the nature of the shock that affected the debtor at the time of its default. Some settlements included contingency arrangements to reflect unexpected improvements or deteriorations in a debtor's economic situation. 1/ Bondholders' committees tended to favor short-term settlements subject to revision as they fell due for renewal instead of more permanent arrangements, although in time permanent settlements became predominant. 2/ Permanent settlements also were granted when the new instruments issued in exchange for old debt were clearly senior to other issues. 3/ In general, negotiations were protracted, taking more than five years to reach a rescheduling agreement. 4/

The most common methods used in providing debt relief generally consisted of replacing defaulted bonds by new bonds carrying longer repayment periods, lower interest rates, or lower principal. 5/ New money was disbursed in some cases by allowing the debtor to float new bonds as part of the deal. In some instances, debtor countries merged existing obligations into a single new debt instrument, to arrive at a uniform interest rate and facilitate administration. Although bondholders regarded the reduction of principal and interest as the most radical method, in some cases this was justified because the face value of debt was judged to be

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1/ Borchard (1983), cites a mid 1930's agreement between Great Britain and Greece, that contains such clauses.

2/ Less than half of the debt relief plans recommended by the FBPC in the period 1934-39 were permanent. In contrast, of the 19 debt relief plans recommended in the period 1940-67, only two were temporary.

3/ For example, Buenos Aires Province was able to obtain a permanent settlement in 1935 by offering as security for the new bonds issued revenues collected by the Federal Government and paid directly to the bonds' paying agents in New York.

4/ In the case of Chile, it took 17 years from the default on its bonds in 1931 to reach a final settlement with creditors (Table 28). Agreement was finally reached under pressure from the World Bank, which would not disburse new loans to a country in formal default. It took Brazil about ten years to complete the restructuring of bonds defaulted on in November 1937.

5/ The agreement reached by Peru in 1943 included provisions to stretch debt maturity from 1958-60 to 1997, whereas the maturities of Brazil's debt were stretched out by 40 to 60 years.

Table 28. Selected Bond Restructurings

Country	Amount and Original Terms	Year of Settlement and New Terms
Brazil:		
Federal Government and most Brazilian states and cities defaulted on debt service of their dollar bonds in the period October 1931-May 1932. Santa Catharina bonds had been in default since 1925. Sao Paulo continued service on a secured issue until 1937.	Original face value of US$450 million, issued in the 1920's, 20 to 30 years maturity, and interest rates ranging from 6.5 to 8 percent.	Settlement in 1943. Face value of adjusted bonds amounted to US$287 million. Two options offered. Option A: Original obligors maintained the responsibility of servicing the new bonds. No reduction of principal, but interest rates would be reduced to 2-3.5 percent with a provision for a sinking fund. Interest rate plus sinking fund ranged between 2.9 and 5.1 percent of principal per year. Option B: The Brazilian Government assumed the service of state and municipal bonds under this option. For every US$1,000 of original bonds, bondholders would receive a cash payment of between US$75 and US$175 (in lieu of interest arrears), a new bond with a face value of US$800 (or US$500 in some cases), and a reduced interest rate of 3.75 percent a year. The bonds had no fixed maturity but were entitled to a sinking fund. Debt service amounted to about 6.4 percent of principal. By early 1946 (time limit to accept plan B) out of 78 percent of the bondholders that accepted the offer, 22 percent had chosen plan A, and 56 percent had opted for plan B. Maturities of the new bonds ranged from 30 to 60 years.
Chile:		
All its dollar bonds went into default in 1931 or in early 1932.	Default involved US$260 million in bonds issued during the period 1922-30, with maturities ranging from 30 to 40 years and average interest rate of 6.58 percent.	Settlement in 1948. Chile offered to exchange at par new 46-year bonds for its outstanding dollar bonds. The new bonds would bear an increasing interest rate schedule beginning at 1.5 percent in 1948 and rising to 3 percent in 1954 and thereafter. Some payments of back interest were to be made over a ten-year period without additional interest. Maturities of the new bonds were extended to 45 years (1993). During the time it took to complete the settlement, Chile bought back US$46 million of principal at about 60 cents on the dollar. As of December 31, 1967, 99 percent of outstanding dollar bonds of Chile had been assented to the 1948 offer.

Table 28 (continued). Selected Bond Restructurings

Country	Amount and Original Terms	Year of Settlement and New Terms
<u>Costa Rica</u>		
In 1985 as part of an overall restructuring of its obligations, the country offered to extend the maturities of certain sovereign external bonds before they fell due. This refinancing would be voluntary.	US$90 million in principal falling due in 1985 from US dollar floating rate notes issued in the late 1970s and early 1980s. Interest rate was Libor + 7/8.	Settlement in 1985. Old bonds would be exchanged for new U.S. dollar floating rate notes with a three year grace period and an average maturity of 5.5 years. Interest rate of new offer Libor + 1.25. Banks or financial institutions had the option of tendering old bonds for conversion to debt under the 1985-86 bank refinancing agreement, where the terms were a 3 year grace period and an average maturity of 7.5 years, at an interest rate of Libor + 1 5/8. The refinancing agreement allowed for conversion to lender country currency. Interest arrears of about US$22 million accrued in 1984 were cleared prior to the exchanges. More than 90 percent of creditors accepted the bond offer (within a year), and the restructured bonds were subsequently serviced on schedule.
<u>Guatemala</u>		
Debt obligations restructured in 1989 following decline of its international reserve holdings to a historical low in 1988. The bunching of debt service obligations in 1988-90 meant that Guatemala would be repaying two-thirds of its external public sector debt by 1991, with the remaining one-third repayable over the following 20 years.	US$500 million of 1983-84 external (stabilization) bonds falling due in 1988-89, with interest rates ranging from 11 percent to 12.5 percent.	Settlement in 1989. New financing plan aimed at reducing the total debt service ratio to about 30 percent from 65 percent. No interest arrears existed on bonds to be restructured. Restructuring process was quite swift as an initial contact with bondholders in May 1988 was followed by an offer in September/October with expiration in December of the same year, and the deal was closed in February, 1989. Stabilization bonds would be replaced by either dollar bonds with a fixed interest of 10 percent and 10.5 year maturity, including a 4.5 year grace period, or local currency denominated bonds with a fixed interest rate of 16 percent and a 7.5 year maturity, with preference for the latter instrument provided for in a number of early redemption options. The amount of new bonds issued compensated for any reduction in interest rates compared with the old ones, and both dollar and local currency denominated bonds were eligible for debt conversions. Interest would continue to be paid on 1984 stabilization bonds (which were not yet due), but any future exchanges would not be more favorable. The new bond offer was accepted by 95-96 percent of bondholders within a year.

Table 28 (concluded). Selected Bond Restructurings

Country	Amount and Original Terms	Year of Settlement and New Terms
<u>Nigeria</u>		
In 1982-83 the country ran into considerable payments difficulties, and accumulated US$6 billion in trade arrears (more than half to uninsured suppliers).	US$4.9 billion (including capitalized interest) of government guaranteed promissory notes issued to refinance uninsured trade arrears. Six year maturity, including 2.5 year grace period, and an interest rate of Libor + 1 percent. Nigeria did not meet the first amortization payment due in the fourth quarter of 1986 or interest payments that fell due in 1987.	In January 1988, a settlement was reached at a large bond holders meeting, by which all claims (including late interest) would be rescheduled over 16 years with a 2 year grace period, at a 5 percent interest rate. Payments in each period would be fixed at 2.5 percent of outstanding claims as of January 1988, with part of the payment applied to current interest and the rest to reduce principal. The rescheduled promissory notes have reportedly been serviced as agreed. Nonetheless, in 1992 US$1.2 billion (of an estimated US$4.3 billion outstanding debt) was bought back in the secondary market at a discount or eliminated through debt-for-equity conversions.
<u>Panama</u>		
Bonds had not been serviced since 1987.	US$450 million at end of 1993, of which US$170 million were interest arrears. Bonds had been issued in the late 1970s and the early 1980s to a diverse group of creditors and in different currencies (U.S. dollar floating rate notes, Japanese yen, and ECU denominated bonds). U.S. dollar floating rates notes carried maturities of five to 12 years and paid interest rates ranging from LIBOR + 5/8 to LIBOR + 1 3/4, but no less than 7 percent. ECU denominated bonds carried five year maturities and paid a fixed 8.25 percent interest rate (8.75 percent on overdue amounts). Yen denominated bonds had five year maturities and paid a fixed interest rate of 7.6 percent per year.	Contacts with major bondholders were initiated in the Spring of 1993, but progress was made only in the fall of that year. No committee was established by bondholders, and efforts were concentrated on reaching an understanding on yen bonds because there was no precedent for a bond default and restructuring in the Samurai market. Contacts were maintained with other bondholders to make certain that the solution being developed with respect to the yen-bonds also would be satisfactory to them. An offer was finally made on January 31, 1994, included a 25 percent downpayment on past due interest, and the restructuring of principal and remaining past due interest at par. New notes were denominated in US dollars or Japanese yen with a maturity of 8 years, including 1.5 years grace and interest rates of Libor + 1 on US dollar bonds or a fixed 3.75 percent for yen bonds. It was explicitly agreed that Panama would not settle on other claims more favorable terms than those under this settlement agreement. By the April 19, 1994 deadline more than 97 percent of creditors had accepted the offer, almost all choosing the new US dollar bonds. The exchange was completed on May 1, 1994.

Sources: Cardoso E. and Dornbusch R. (1989), "Brazilian Debt Crises: Past and Present," in B. Eichengreen and Lindert, P. (eds), <u>The International Debt Crisis in Historical Perspective</u>, Cambridge: The MIT Press; Jorgensen and Sachs (1989); various issues of the Foreign Bondholders Protective Council, Inc. Report; and Fund Staff.

obviously in excess of the debtor's capacity to repay. 1/ As part of the debt settlements, interest arrears were usually partially or entirely canceled. 2/ Debtors were generally unable to make upfront cash payments, except in instances where new money was provided. In many cases, debtors strengthened the collateral of the new instruments. Also, a reversion clause was generally included in the agreements which specified that failure of the debtor to comply with the new terms would lead to an immediate reversion to the terms of the original contract.

c. Access following restructurings

Defaults in the 1930s appear to have carried a high price for developing countries in terms of subsequent market access. Following payments suspensions during that decade, it took about 40 years for them to regain substantial access to international capital markets. 3/ Moreover, lenders' reactions were across the board, affecting all borrowing countries, including those which did not reschedule their debt obligations. These contagion effects were particularly evident for Latin American countries. Between 1950 and 1964 (the 15-year period immediately after the time that most settlements of the 1930s defaults were reached), capital flows to these countries remained modest. 4/ Not until the 1970s did developing countries re-establish significant market access. The lengthy period of time before access was restored may have reflected the widespread nature of the bond defaults in the 1930s and the nature of the settlements, leading

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1/ Interest payments were sometimes reduced on the grounds that interest rate levels had fallen significantly since the time of issue of the original bonds, although such settlements often provided for a gradual increase over time. The interest reduction agreements of Brazil (1934) and the Province of Buenos Aires (1935) provided for a rising interest rate schedule. Brazil's settlement in 1943 also included a provision in one of its two plans for principal reduction. The unusually favorable terms obtained by Brazil were attributed in part to the savvy exploitation by the country negotiators of the persistent disagreements between the representatives of American and British bondholders.

2/ Chile's settlement of 1948 included payment of about 12 percent of its unpaid interest since default, Peru's 1943 agreement included a 10 percent payment, and Brazil's 1943 agreement only a small portion.

3/ World War II and its immediate aftermath, of course, contributed in part to this lengthy delay in regaining market access.

4/ See Jorgensen and Sachs (1989), and B. Eichengreen, and Portes, R., "Dealing with Debt: the 1930's and the 1980's," National Bureau of Economic Research, Working Paper, No. 2867, 1989.

lenders to a general reassessment of the external bond market. 1/ Moreover, lenders did not entirely forget the experience of the 1930s when market access was re-established in the 1970s. When countries that defaulted on bonds in the 1930s came back to the capital markets, they generally had to pay a higher interest premium on funds borrowed than other developing countries.

2. Experience in the 1970s and 1980s

a. Bond financing flows

Following a phase of consolidation and restructuring of debts, in the period 1930-50, capital flows to developing countries did not begin again in earnest until the 1970s and early 1980s. Although most developing countries received external financing during this period mainly in the form of syndicated loans, some of them also chose to issue bonds. However, bond issues never reached the annual levels observed in the early 1900s, and bond financing declined in relative importance. International bonds issued by developing countries in the first half of the 1980s amounted to US$24 billion, with the stock of bond debt of major indebted countries amounting to only US$17 billion in the mid-1980s. Bond financing during this period tended not to be project-specific; rather, it was one of several avenues that countries used to cover their overall financing needs.

The pool of lenders in the 1970s and 1980s became quite diversified as the Euromarket and the Samurai market competed with New York to float new developing country issues. The terms for the bonds mirrored those of contemporary syndicated commercial bank loans, ranging from about 1 percent to 2 percent above LIBOR, but in some cases bonds with fixed interest rates of 11-12 percent were issued. Maturities generally varied from 5 to 12 years--considerably shorter than those of developing country bonds issued

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1/ To some extent, the pervasiveness of defaults in the 1930s is explained by the reluctance of bondholders to provide new money and thus mitigate a period of borrowing countries' illiquidity as noted in B. Eichengreen, "Historical Research on International Lending and Debt," Journal of Economic Perspectives, Vol. 5, No. 2, 1991. In addition, creditor-country governments appear to have been unwilling to intervene. Some political nuances to this explanation are added by M. De Cecco, "The International Debt Problem in the Interwar Period," European University Institute, Working Paper No. 84/103, 1984, who argues that the post-World War I recognition by the U.S. and Great Britain that German war reparations--required by the Peace Treaty--were unrealistic, and that Germany would be unable to honor them, opened the door for repudiation and default on foreign obligations as a legitimate recourse for other debtor countries encountering financial difficulties in the 1930s.

earlier in the century. As in the 1920s, developing countries in some cases used enhancements to make bonds more attractive to investors. 1/

b. Payments difficulties in the 1980s

Repayments problems in the 1980s followed a period of poor economic policies by some developing countries, but were also triggered in some cases by adverse external shocks (such as lower oil prices) or higher world interest rates. The incidence of payment difficulties on bonds was smaller relative to that on other debts, perhaps pointing to some preferential treatment of these instruments by debtor countries. It could also have reflected the relatively small stock and debt service falling due on bonds. 2/ However, in some cases, bonds were restructured as they matured (e.g., Costa Rica and Guatemala); while in others, defaults took place (e.g., Panama and Nigeria).

A distinctive feature of the restructurings that took place in this period was that no official bondholder committees were involved in the settlements. Rather, debtor countries facing servicing difficulties made unilateral offers to bondholders, who signalled their approval by exchanging instruments carrying new terms for the old instruments. These offers, however, were formulated on the basis of at least informal contacts with the main groups holding the securities. All settlements were final. No debt reduction was involved, and some of the settlements required the debtors' to make upfront cash payments of interest arrears (see Table 28). Moreover, interest rates on the new instruments were generally higher than those on the old bonds.

In some cases (notably Panama), the formulation of an acceptable settlement was complicated by the diversity of the group of creditors involved and the different currencies of denomination of the bonds issued (U.S. dollars, yen, and ECUs). All settlements included negative pledge clauses, providing that bonds would be extended any advantage granted to new or outstanding obligations. In addition, some settlements included early redemption options and allowed for debt conversions into equity. Typically, it took from six months to a year to complete a bond restructuring, with 95-100 percent of bondholders accepting the offer. The speed with which agreement was reached and the high level of acceptance may reflect the fact that significant debt reduction was not involved in these settlements, interest arrears were paid (at least in part) upfront as part of the settlements, and more favorable terms were offered on the new instruments exchanged for the old obligations.

1/ OECD, Financial Market Trends, March 1981. Some Mexican issues in the U.S. market in the 1970s were indexed peso-denominated petro bonds and silver-indexed bonds.

2/ This experience is often cited as supporting the current market view that bonds are seen as being senior to other forms of indebtedness.

c. Access after recent restructurings

The evidence on new access following recent bond restructurings is mixed; the sample is small, and some of the restructurings are very recent. More importantly, it is difficult to disentangle the influences of the broader problem with bank debt. On the whole, new access has been quite limited for all of the countries that restructured their bonds in the 1980s and 1990s. Where countries have managed to raise new funds, amounts have generally been small, interest rate premiums high, and maturities short.

Guatemala returned to the international bond markets in August 1993. The country's Asociación Nacional del Café raised US$60 million through a five-year Eurobond guaranteed by the Government and reportedly partially collateralized with coffee export receivables. The issue was priced at 605 basis points over U.S. Treasury securities with comparable maturities. The spread on this issue substantially exceeded the average spread on other Latin American bonds of around 350 basis points which prevailed at that time.

Costa Rica returned to international capital markets in January 1994, after a 14-year absence, with a three year US$50 million Eurobond at a 395 basis point spread issued by the state-owned electricity and telecommunications monopoly, without any explicit government guarantee. While the bond was relatively short term and the spread on the high end of the spectrum for Latin American bond issues, the deal was considered a success with demand from a wide range of investors.

Evolution of Debt and Debt Service Reduction Operations

The sequence in which debt restructuring agreements have been reached has in part been dictated by the willingness of countries to regularize relations with commercial bank creditors and the strength of the countries' economic policy programs which provided reasonable assurances that new debt swapped for existing debt could be serviced. Precedents were also important in the negotiation process. Better conditions in one package generally set the starting point for negotiations on the next country's agreement.

Table 29 lists in chronological order, according to date of the agreement in principle, the 13 bank debt restructurings agreed to under the Brady Plan. 1/ For each of these countries, the table shows the cost of the debt and debt service operation and the debt reduction received per US$100 of original principal. The table also shows the buyback equivalent price of each deal. 2/ Per US$100 of principal, the weighted average gross debt reduction of the deals is US$43.48 at a weighted average cost of US$14.06, yielding an weighted average buyback equivalent price of US$32.70. The four largest Latin American debtors (Argentina, Brazil, Mexico, and Venezuela) heavily influence these averages, in that they account for about 80 percent of the debt restructured (with this rising to 90 percent if Poland and Bulgaria are included). The data on cost versus debt reduction per unit of principal for each of the debt deals sampled here are shown in

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1/ Ten of these agreements have already been concluded, and the other three are expected to be completed within six months. Debt operations involving only buybacks are excluded from the sample of countries examined here.

2/ The buyback equivalent price is the ratio of cost to gross debt reduction. For instance, in a straight buyback at 30 cents on the dollar, it cost US$30 to extinguish US$100 of gross debt (i.e., inclusive of cost), net debt reduction is US$70. The buyback price is merely the ratio of cost (US$30) over gross debt reduction (US$100). Similarly in a discount exchange that entails issuance of a discount bond with a face value of US$65 per US$100 of debt, (i.e., a discount of 35 percent) and collaterals whose cost amounts to US$15, then net debt reduction would amount to US$35 whereas gross debt reduction would amount to US$50 (i.e., inclusive of cost, US$35 plus US$15). Thus the buyback equivalent price for such an exchange would be the ratio of cost (US$15) to gross debt reduction (US$50) or 30 cents on the dollar. In the case of par exchanges debt reduction is calculated on present value terms. For a further description of this concept see Annex I of Private Market Financing for Developing Countries (International Monetary Fund, December 1992).

Table 29. Cost and Debt Reduction in 13 DDSR Operations

(In U.S. dollars)

	Per US$100 Cost	Per US$100 Debt Reduction	Buyback Equivalent Price (Percent of Face Value)
		(Per unit of principal)	
Mexico (1989)	15.31	42.59	35.93
Costa Rica (1989)	13.58	77.46	17.53
Venezuela (1990)	11.61	30.68	37.85
Uruguay (1991)	29.18	55.22	52.84
Nigeria (1991)	29.55	75.60	39.09
Philippines (1992)	25.13	52.81	47.58
Argentina (1992)	14.47	48.39	29.90
Brazil (1992)	9.77	32.51	30.07
Dominican Republic (1993)	17.28	65.81	26.26
Jordan (1993)	14.86	42.46	34.99
Bulgaria (1993)	10.44	57.60	18.12
Poland (1994) 1/	15.39	62.24	24.72
Ecuador (1994) 2/	14.13	57.93	24.40
Total 3/	14.06	43.48	32.70
		(Per unit of debt)	
Memorandum items:			
Bulgaria (1993)	7.94	43.82	18.12
Poland (1994) 1/	11.26	51.81	21.73
Ecuador (1994) 2/	8.88	36.39	24.40

Source: IMF staff estimates.

1/ Illustrative figures based on a preliminary information regarding the allocation of exposure by creditors and assuming that sufficient waivers are obtained for the buyback.

2/ Illustrative figures based on an assumed allocation of exposure of 60 percent to the discount bond and 40 percent to the par bond.

3/ Weighted average.

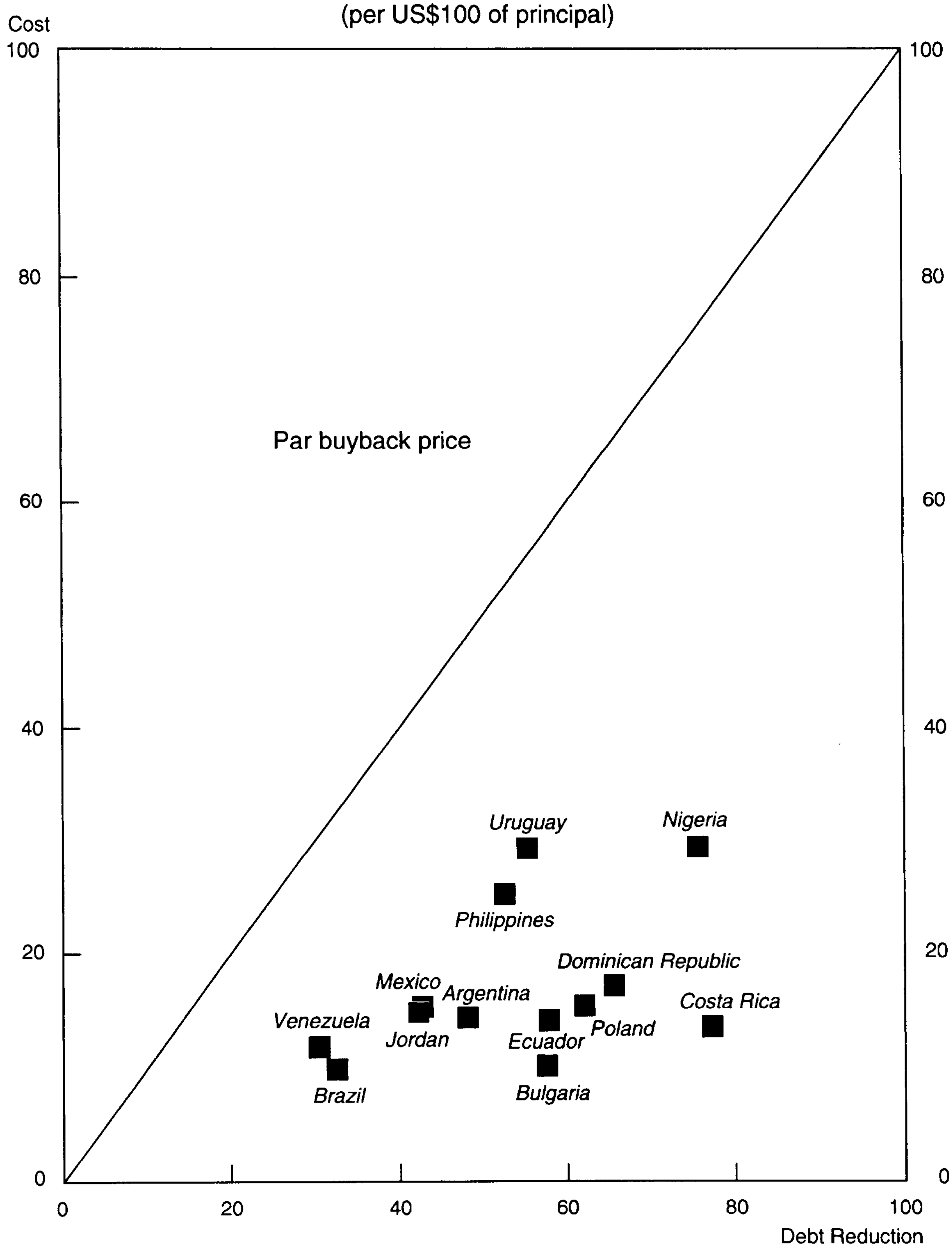
Chart 20. 1/ The recent debt deal with Poland raises a complication in that it involves debt service reduction on past due interest. In this case, the relevant scale factor for comparisons is US$100 of total debt (original principal plus past due interest). Table 29 shows calculations on this basis for Bulgaria, Ecuador, and Poland as memorandum items. Since Poland will receive some debt service reduction on past due interest at no extra cost for the package, the buyback equivalent price of its deal is less on this basis.

On the basis of these data, it is possible to make only some general observations across countries about the debt agreements reached. 2/ While costs and buyback equivalent prices seem to decline for the most recent operations, debt reduction has been more volatile. In general, more debt reduction has been achieved but at a higher cost.

1/ A property of this chart is that the slope of any ray from the origin to a particular country point represents the buyback equivalent price of the operation for that country; the diagonal in the chart represents the par BEP (i.e., payment with no debt reduction).

2/ The more fundamental question about the consistency of a debt reduction package with the payments capacity of a country is not addressed in these data. To the extent that the secondary market price of debt is judged to adequately reflect a country's debt servicing ability, an average buyback equivalent price for a debt package that is in line with the price of debt in the secondary market at the time of the agreement in principle could be interpreted as being consistent with a country's payments capacity.

CHART 20
COST AND DEBT REDUCTION IN DDSR OPERATIONS
(per US$100 of principal)



Source: IMF staff estimates.

Glossary

Agreement in principle (also known as the "heads of terms"): The document outlining the main elements of a debt and debt service reduction operation agreed ad referendum between a country's debt negotiating team and the corresponding bank advisory committee, which represents the country's creditors holding bank debt.

American depository receipt (ADR): A U.S. dollar-denominated equity-based instrument backed by shares in a foreign company held in trust by a depository institution that is traded in the United States.

Bullet bond: A bond on which interest is paid at regular, specified intervals and the entire principal is repaid only at the bond's maturity.

Buyback: Direct purchase of debt in the secondary market. For a country to buyback its own bank debt, a waiver from the creditors is usually required.

Buyback equivalent price: The ratio of the costs of a debt and debt service reduction operation to gross debt reduction achieved. It is a means of comparing the value of the various options in a debt package, since it is comparable to a buyback price.

Closed-end mutual fund: A mutual fund that sells only a fixed number of shares in the fund. These shares are traded on the market and not redeemed on a continuous basis by the fund.

Closing: Date when the debt exchange, cash payments, and deposit of collaterals in a debt and debt service reduction operation take place. In practice some reconciliation of claims may take place after this date, but all relevant bonds and collaterals are deposited with an escrow agent.

Convertible bond: A bond giving the investor the option at some future date to convert it into equity at a fixed conversion price.

Cost of the operation: For a debt and debt service reduction operation, it consists of the financial resources necessary to purchase collaterals for a specific bond exchange, to buyback debt, and to make prespecified cash payments.

Debt and debt service reduction operation (DDSR): Transaction that involves a menu of options for eligible principal by which bank claims on a country are bought back at less than face value and/or exchanged for new enhanced bonds at par (with below market interest rates) or at a discount. Past due interest (PDI) is usually rescheduled as part of the operation, normally after a cash payment is made upfront (after deducting amounts bought back as part of a debt buyback).

Discount bond: As part of a bank debt exchange, a bond exchanged for bank claims at a fixed discount from the face value of those claims. In the debt deals concluded thus far, such bonds generally have been 30-year bullet bonds bearing market interest rates (13/16 over LIBOR), with enhancements in the form of collateral for principal and/or interest payments.

Dragon bond: Bonds in foreign currencies which are issued in the Asia-Pacific region outside of Japan and listed on at least two securities exchanges in the region (Hong Kong, Singapore, or Taiwan).

Eligible principal: Refers to the debt subject to restructuring in a debt and debt service reduction operation. Usually, it includes the majority of commercial bank medium- and long-term debt. In some cases, short-term debt is also included.

Eurobond: Bonds in foreign currencies which are sold simultaneously in a number of foreign countries outside of the Untied States by a syndicate of underwriters, generally including the London branches of European, Japanese, and U.S. financial institutions.

Floating rate note: A debt instrument with a variable interest rate which is adjusted periodically (usually at 3- or 6-month intervals) based on movements in a reference rate (e.g., LIBOR).

Front-loaded interest reduction bond (FLIRB): As part of a bank debt exchange, a bond exchanged for bank claims at the face value (par) of those claims. It provides temporary debt service reduction by carrying below market interest rates for an initial period that then rise to market rates over the remaining term of the bond. Such bonds are usually enhanced with an interest guarantee during the period that they bear below market interest rates; generally no principal collateral is included.

Global depositary receipt (GDR): Similar to an American depository receipt (ADR), but issued and traded internationally.

Gross debt reduction: Reduction in the level of debt arising from a debt and debt service operation inclusive of cost. For instance, in a buyback at 30 cent on the dollar, it would cost US$30 for each US$100 of gross debt reduction.

Interest guarantee: Part of the enhancements for FLIRBs, par, or discount bonds, taking the form of certain number of months of interest due on these bonds (at a prearranged interest rate) being placed in escrow for a specified period of time to guarantee timely servicing of the debt.

LIBOR: Abbreviation for London inter-bank offer rate. Although quoted for different currencies, it usually refers to the interest rate on 6-month U.S. dollar deposits.

Menu approach: Range of options for debt buybacks and exchanges offered in a debt and debt service reduction operation to creditors holding commercial bank claims on a country.

Net debt reduction: Reduction in the level of debt excluding the cost. It represents the write-off of debt resulting from a debt and debt service reduction operation. For instance, in a buyback at 30 cents on the dollar, the net debt reduction would be US$70 for each US$100 of debt retired (gross debt reduction).

New money option: Option in a debt and debt service reduction operation whereby old claims are usually rescheduled in exchange for creditors providing new financing in a specified proportion to the existing debt tender under such an option.

Open-end mutual fund: A mutual fund that sells new shares or redeems existing ones on demand at a price based on the market value of its portfolio per existing share.

Par bond: As part of a bank debt exchange, a bond exchanged for bank claims at the face value of those claims. In the debt deals concluded thus far, these bonds generally have been 30-year bullet bonds bearing sub-market interest rates, with enhancements in the form of collateral for principal and/or interest payments.

Past due interest (PDI): Interest arrears to commercial banks.

PDI bond: As part of a bank debt exchange, a bond exchanged for interest arrears on commercial bank debt. In general, these bonds carry shorter maturities (12-20 years), market interest rates, and require amortization payments on principal after a specified grace period (3-7 years); no enhancements are included.

Principal collateral: As part of the enhancement for par or discount bonds, a zero interest-coupon financial instrument held in escrow to meet principal repayments on these bonds when they mature. The most commonly used instruments are 30-year zero-coupon U.S. Treasury bonds.

Samurai bond: A Yen-denominated bond issued in Japan by a foreign borrower. For public placements, issuers are required to have an investment credit grade rating.

Spread: The difference between the yields on debt instruments of comparable maturities. Often as an indicator of risk, spreads are calculated as the difference between the yield on a debt instrument and that on a "risk-free" debt instrument of a comparable maturity. Risk-free yields are usually proxied by the yields on U.S. Treasury securities or the securities of comparable quality issued by other governments in the case of debt instruments not issued in U.S. dollars.

Term sheet: Legal document sent by a bank advisory committee to all holder of bank claims on a country once an agreement in principle has been reached, asking for their participation in the debt deal. It formally lays out the terms of the agreement and requests creditors to respond by a certain date (the "commitment date") with their preferred allocation their holdings of claims to the various options in the agreement. Usually it requires a "critical mass" of participation by creditors for the debt deal to be concluded. The size of this critical mass is specified in the original bank loan agreements.

Yankee bond: A U.S. dollar-denominated bond issued in the United States by a foreign borrower. Yankee issuers are subject to the U.S. Securities and Exchange Commission registration and disclosure requirements.

Zero coupon bonds: Single-payment, long-term bonds which do not call for periodic interest payments. The bonds are sold at discounts from their fair value and the investor's entire return is realized at maturity.

Table A1. Amounts of Medium- and Long-Term Bank Debt Restructured, 1985-July 1994 1/

(In millions of U.S. dollars; by year of agreement in principle)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	First Half 1994
Argentina	--	--	29,500 2/	--	--	--	--	27,980 3/	--	--
Bolivia	--	--	473 3/ 4/	--	--	--	--	170 3/ 4/	--	--
Brazil	--	6,671 6/	--	61,000 2/	--	--	7,100	46,600 3/	--	--
Bulgaria	--	--	--	--	--	--	--	--	8,666	--
Chile	6,007	--	5,902 2/	--	--	1,800 7/	--	--	--	--
Congo	--	217	--	--	--	--	--	--	--	--
Costa Rica	440	--	--	--	1,570 3/	--	--	--	--	--
Côte d'Ivoire	--	691 2/	--	2,211 2/	--	--	--	--	--	--
Dominican Republic	787 2/	--	--	--	--	--	--	--	1,100 3/ 5/	--
Ecuador	4,683 2/	--	--	--	--	--	--	--	--	7,117 5/
Gabon	--	--	39	--	--	--	157	--	--	150 5/
Gambia, The	--	--	19	--	--	--	--	--	--	--
Guinea	--	--	43	--	--	--	--	--	--	--
Guyana	(47) 8/	(57) 8/	--	--	--	--	--	93 11/	--	--
Honduras	--	--	248 2/	--	132 2/	--	--	--	--	--
Jamaica	195	--	285 2/	--	--	332	--	--	--	--
Jordan	--	--	--	--	--	--	--	--	857 3/	--
Madagascar	... 9/	--	... 9/	--	--	21	--	--	--	--
Malawi	--	--	--	35 2/	--	--	--	--	--	--
Mexico	(950) 10/	43,700 2/	--	3,671 3/	48,231 3/	--	--	--	--	--
Morocco	538	2,174	--	--	--	3,150	--	--	--	--
Mozambique	--	--	253 2/	--	--	--	124 4/ 11/	--	--	--
Nicaragua	--	--	--	--	--	--	--	--	--	--
Niger	--	52	--	--	--	--	111 4/ 11/	--	--	--
Nigeria	--	4,250	--	5,824 2/	--	--	5,811 11/	--	--	--
Panama	579	--	--	--	--	--	--	--	--	--
Peru	--	--	--	--	--	--	--	--	--	--
Philippines	--	--	9,010 2/	--	781	1,339 11/	4,473 3/	--	--	--
Poland	--	1,970	8,411 2/	--	(351) 8/	--	--	--	--	12,669 5/
Romania	--	800	--	--	--	--	--	--	--	--
Russia	--	--	--	--	--	--	--	--	24,000 5/	--
Senegal	20	--	--	--	--	37	--	--	--	--
Sierra Leone	--	--	--	--	--	--	--	--	--	--
South Africa	--	(13,600) 8/	11,900 2/	--	8,000	--	--	--	5,000	--
Sudan	920	--	--	--	--	--	--	--	--	--
Togo	--	--	--	49 2/	--	--	--	--	--	--
Trinidad and Tobago	--	--	--	470 2/	--	--	--	--	--	--
Uganda	--	--	--	--	--	--	--	--	153 4/11/	--
Uruguay	1,958 2/	--	1,770 2/	--	--	1,608 3/	--	--	--	--
Venezuela	--	--	20,338 2/	--	--	19,700 3/	--	--	--	--
Yugoslavia	4,012 2/	--	--	6,895 2/	--	--	--	--	--	--
Zaïre	(61) 8/	(65) 8/	(61) 8/	--	(61) 8/	--	--	--	--	--
Zambia	--	--	--	--	--	--	--	--	--	414 5/
Total 11/	20,139	60,525	87,221	80,155	50,714	27,987	17,776	74,843	40,276	20,350

Sources: Restructuring agreements; and IMF staff estimates.

1/ Including short-term debt converted into long-term debt and debt exchanges involving interest or principal reduction. Amounts represent face value of old claims restructured; includes past due interest where applicable.
2/ Multiyear rescheduling agreement (MYRA) entailing the restructuring of all eligible debt outstanding as of a certain date.
3/ Financing packages involving debt and debt service reduction.
4/ Excludes past due interest.
5/ Estimates of eligible debt.
6/ Excluding US$9.6 billion in deferments corresponding to maturities due in 1986.
7/ Amendments to previous restructuring agreements.
8/ Deferment agreement.
9/ Agreements in 1985 and 1987 modified debt service profiles on debt rescheduled under the 1984 agreements; the amounts involved are not shown because repayments made during 1985-87 have not been identified.
10/ Agreement was reached with creditor banks in this year to amend certain terms of previous restructuring agreements. The amounts involved, however, were not modified in relation to those shown for the previous year.
11/ Face value of debt extinguished in buy-back.
12/ Totals exclude amounts deferred, given in parentheses.

Table A2. Terms and Conditions of Bank Debt Restructurings and Financial Packages, 1989-July 1994 1/

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided	Grace Period	Maturity	Interest Rate
		(In millions of U.S. dollars)	(In years, unless otherwise noted)		(In percent spread over LIBOR/U.S. prime, unless otherwise noted)
Argentina					
Preliminary agreement on April 7, 1992; term sheet June 23, 1992; final agreement December 6, 1992 and closing of agreement for principal on April 7, 1993					
Collateralized debt exchange	Debt reduction (see Table A3)				
Bolivia					
Agreement in principle of April 1992; term sheet July 10, 1992; final agreement March 30, 1993 and closing of agreement on May 19, 1993					
Waiver to allow debt buy-back and exchanges	Debt reduction (see Table A3)				
Brazil					
Preliminary agreement on July 8, 1992 term sheet September 22, 1992; final agreement November 29, 1993 and closing of agreement April 15, 1994	Old debt (equal to 5.5 times the new money provided) to be exchanged at par for new noncollateralized bonds.	...	7	15	7/8
New money bonds					
Restructuring loan	Difference between interest rate in years 1-6 and LIBOR plus 13/16 to be capitalized.	...	10	20	years 1-2: 4 percent years 3-4: 4.5 percent years 5-6: 5 percent years 7-20: 13/16
Capitalization bond	Difference between interest rate in years 1-6 and 8 percent to be capitalized. Back-loaded amortization schedule.	...	10	20	years 1-2: 4 percent years 3-4: 4.5 percent years 5-6: 5 percent years 7-20: 8 percent
Collateralized debt exchanges	Debt reduction (see Table A3)				
Bulgaria					
Agreement in principle on November 24, 1993; term sheet March 11, 1994, final agreement June 29, 1994					
Collateralized debt exchange	Debt reduction (see Table A3)				
Costa Rica					
Preliminary agreement of November 16, 1989, final agreement on May 21, 1990	Debt reduction (see Table A3)				

Table A2 (continued). Terms and Conditions of Bank Debt Restructurings and Financial Packages, 1989-July 1994 1/

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided	Grace Period	Maturity	Interest Rate
		(In millions of U.S. dollars)	(In years, unless otherwise noted)		(In percent spread over LIBOR/U.S. prime, unless otherwise noted)
Dominican Republic					
Preliminary agreement on May 3, 1993; term sheet August 6, 1993; final agreement February 14, 1994					
Collateralized debt exchange	Debt reduction (Table A3)				
Ecuador					
Agreement in principle on May 2, 1994; term sheet June 14, 1994					
Collateralized debt exchange	Debt reduction (see Table A3)				
Gabon					
Agreement in principle of December 11, 1991; final agreement on May 12, 1992;					
Rescheduling of principal due January 1, 1989-December 31, 1992.	100 percent of principal	157	3	13	7/8
Guyana					
Agreement on term sheet on August 27, 1992; final agreement November 24, 1992	Debt reduction (Table A3)				
Honduras					
Agreements of August 17, 1989					
Bilateral concessional rescheduling of debt to Lloyds Bank					
Principal outstanding at end-October 1989	100 percent	46 2/	7	20	6.25 percent fixed rate 3/
Interest arrears at end-October 1989	100 percent	22 2/4/	7	20	6.25 percent fixed rate 3/
Bilateral concessional rescheduling of debt to Bank of America					
Principal outstanding	100 percent	47 2/	10	20	6.5 percent
Interest arrears as of end-October 1989	100 percent	17 4/	2/3	20	4 percent fixed rate
Jamaica					
Agreement of June 26, 1990					
Refinancing of debt previously rescheduled in 1987					
Tranche A	100 percent of principal	144	--	10 1/2	13/16
Tranche B	100 percent of principal	188	8	14 1/2	13/16

Table A2 (continued). Terms and Conditions of Bank Debt Restructurings Financial Packages, 1989-July 1994 1/

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided	Grace Period	Maturity	Interest Rate
		(In millions of U.S. dollars)	(In years, unless otherwise noted)		(In percent spread over LIBOR/U.S. prime, unless otherwise noted)
Jordan					
Agreement in principle of November 20, 1989					
Restructuring of medium-term loans maturing between January 1, 1989-June 30, 1991	100 percent of principal	580	5	11 1/2	13/16
New medium-term money facility	New money	50	3	3	13/16
Preliminary agreement on June 30, 1993; term sheet August 20, 1993; final agreement December 10, 1993 and closing of agreement December 23, 1993					
Collateralized debt exchange	Debt reduction (Table A3)				
Madagascar					
Agreement in principle in October 1989 and signed on April 10, 1990					
Rescheduling	100 percent of principal falling due on December 15,1989 and 50 percent of principal falling due in 1990-93	21.1	3 1/2	9	7/8-1
Mexico					
Agreement of February 4, 1990					
New money facility	New money	1,090 5/	7	15	13/16
Collateralized debt exchanges	Debt reduction (see Table A3)				
Restructuring of maturities of eligible debt not subject to debt and debt service reduction	100 percent of principal	6,400	7	15	13/16
Morocco					
Agreement in principle of April 1990; final agreement of September 1990					
Restructuring of the entire debt outstanding at end-1989	100 percent of pre-cutoff debt	3,150	7-10	15-20	13/16
Debt buy-backs authorized					
Mozambique					
Agreement in principle of November 1, 1991; operation completed December 27, 1991					
Waivers to allow debt buy-back	Debt reduction (see Table A3)				

Table A2 (continued). Terms and Conditions of Bank Debt Restructurings Financial Packages, 1989-July 1994 1/

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided	Grace Period	Maturity	Interest Rate
		(In millions of U.S. dollars)	(In years, unless otherwise noted)		(In percent spread over LIBOR/U.S. prime, unless otherwise noted)
Niger					
Agreement in principle of January 14, 1991; operation completed March 8, 1991					
Waivers to allow debt buy-back	Debt reduction (see Table A3)				
Nigeria					
Agreement in principle of September 1988; final agreement of April 1989					
Restructuring of debt outstanding at end-1987					
Not previously rescheduled medium-term debt	100 percent of principal	1,256	3	20	7/8
Debt covered by the November 1987 rescheduling agreement	100 percent of principal	1,635	3	20	7/8
Debt (letters of credit) covered by the November 1987 refinancing agreement	Arrears on interest, fees, and commissions on letters of credit	2,448	3	15	13/16
	100 percent	490 6/	--	3	non-interest-bearing
Agreement in principle of March 1991; final agreement December 20, 1991 and closing of agreement on January 21, 1992					
New money bond exchange	Banks would provide new money in an amount equivalent to 20 percent of debts exchanged for noncollateralized new bonds.	--	7	15	1
Buy-back and debt exchange	Debt reduction (see Table A3)				
Philippines					
Agreement in principle of October 1989; final agreement of February 1990:					
New money bonds or loans 7/	New money	710	8	15	13/16
Rescheduling of maturities falling due in 1990-93	100 percent of principal	781	8	15	13/16
Change in spread on previously restructured debt	--	Unchanged	13/16		
Waivers to allow debt buybacks and exchanges	Debt reduction (see Table A3)				
Preliminary agreement of August 1991; term sheet February 1992, final agreement July 24, 1992 and closing of agreement on December 1, 1992					
New money bonds	Old debt (equal to four times the new money provided) to be exchanged at par bond for new noncollateralized bonds.	139 8/	5	17	13/16
Collateralized debt exchanges	Debt reduction (see Table A3)				

Table A2 (continued). Terms and Conditions of Bank Debt Restructurings Financial Packages, 1989-July 1994 1/

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided	Grace Period	Maturity	Interest Rate
		(In millions of U.S. dollars)	(In years, unless otherwise noted)		(In percent spread over LIBOR/U.S. prime, unless otherwise noted)
Poland					
Agreement in principle of June 16, 1989					
Deferment of amortization payments falling due between May 1989 and December 1990 9/	100 percent	206	...	...	Unchanged
Agreement in principle of October 1989					
Rescheduling of interest falling due in the fourth quarter of 1989 10/	85 percent	145	...	...	
Agreement in principle of March 10, 1994; term sheet May 23, 1994					
New money bonds	New money bonds to be provided corresponding to 35 percent of debt allocated to debt conversion bonds (see Table A3)	...	10	15	13/16
Collateralized debt exchange	Debt reduction (see Table A3)				
Russia					
Agreement in principle of July 30, 1993	100 percent of principal	24,000	5	15	...
Rescheduling of existing stock of debt and interest arrears	100 percent of interest arrears after cash payments of $500 million	3,000	5	10	...
Senegal					
Agreement of September 1990		37	-	9	7/8
South Africa					
Debt arrangement of September 27, 1993	100 percent of principal	5,000	1/2	8	1 1/8
Rescheduling of short and medium-term debt subject to September 1985 standstill and falling due at expiration of third interim arrangement					
Trinidad and Tobago					
Agreement in principle of November 1988; final agreement December 1989					
Medium- and long-term maturities falling due September 1, 1988-August 31, 1992	100 percent of principal	446	4 1/2	12 1/2	15/16

Table A2 (concluded). Terms and Conditions of Bank Debt Restructurings Financial Packages, 1989-July 1994 1/

Country, Date of Agreement, and Type of Debt Rescheduled	Basis	Amount Provided	Grace Period	Maturity	Interest Rate
		(In millions of U.S. dollars)	(In years, unless otherwise noted)		(In percent spread over LIBOR/U.S. prime, unless otherwise noted)
Uganda					
Final agreement: February 26, 1993	Debt reduction (Table A3)				
Uruguay					
Agreement in principle of November 1990; final agreement January 1991					
New Money Bond Exchange	20 percent increase in exposure via purchase of new bonds would entitle banks to exchange at par old debt for noncollateralized "debt-conversion notes."	89	7	15	1.0
Buy-back and debt exchange	Debt reduction (see Table A3)				
Venezuela					
Agreement in principle of March 20, 1990; final term sheet of June 25, 1990; final agreement of December 5, 1990					
New money bond exchange	Old debt (equal to five times the new money provided) to be exchanged at par for new, noncollateralized bonds.	1,197	7	15	1 and 7/8 11/
Collateralized debt exchanges	Debt reduction (see Table A3)				
Zambia					
Agreement in principle July 1, 1994	Debt reduction (Table A3)				

Sources: Restructuring agreements; and IMF staff estimates.

1/ Arrangements approved in principle before January 1, 1989 are reported in previous background papers.

2/ Voluntary amortization payments made during the grace period would be matched on a 1:1 basis by debt forgiveness (equivalent to a buy-back option at 50 cents on the dollar).

3/ Interest rate would be increased by a maximum of 3 percentage points if GDP growth exceeds a threshold rate.

4/ Seventy percent of these arrears to be forgiven in 1990 upon downpayment equal to 5 percent of these arrears. Beginning at the end of 1990 and provided that Honduras remains current on interest due on all rescheduled amounts under the agreement, the creditor bank would further forgive interest arrears by a yearly amount equal to 5 percent of the arrears outstanding at the end of October 1989.

5/ New money options include medium-term loan, new money bonds, on-lending facility, and medium-term trade facility. As of the end of March 1992, US$952 had been disbursed.

6/ Includes US$112 million of previously capitalized interest arrears on letters of credit.

7/ Allowance for re-lending for up to 366 days of up to 20 percent of the new money on a revolving basis, of which one half would be available in any one calendar year and one half would be available to the private sector.

8/ Committed to the new money option at the end of June 1992, with 95 percent of eligible debt tendered under the package.

9/ Payment is to be deferred until December 30, 1991. Alternatively, banks may receive payments according to the original schedule in return for an equal increase in the short-term revolving trade facility.

10/ Payment was deferred until the second quarter of 1990.

11/ The interest rate of LIBOR plus 7/8 applies to the new money bonds issued by the central bank (as opposed to bonds issued by Venezuela).

Table A3. Debt and Debt Service Reduction in Commercial Bank Agreements, 1987-July 1994

(By year of agreement in principle)

	Face Value of Debt to Commercial Banks Retired	Issued	Resources Used	Terms	Enhancements for New Instruments	Special Features
	(In millions of U.S. dollars)					
Argentina (1987)						
Noncollateralized debt exchange with interest reduction	15	15	--	Old claims exchanged at par for new exit bonds with 25-year maturity (12 years' grace) and 4 percent fixed rate.	--	New bonds excluded from future new money base.
Argentina (1992)						
Principal reduction	6,663	4,331		Old claims exchanged for new bonds, with a 30-year bullet maturity and interest at LIBOR plus 13/16, at pre-negotiated exchange ratio of 1:0.65.	Principal fully collateralized and 12-month rolling interest guarantee based on 8 percent rate.	Part of past due interest settled at closing date through cash payments (of US$700 million). The balance refinanced (three years' grace) bearing interest of LIBOR plus 13/16 and semi-annual amortization payments rising from 1 percent of the original face value in payments 1-7, 5 percent in payment 8, and 8 percent in payments 9-19. Interest due reduced to respective monthly LIBOR through end 1991, and to 4 percent thereafter. Bonds eligible for debt conversions.
Interest reduction	12,734	12,734	3,059 1/ (including resources from IMF, World Bank, Inter-American Development Bank, Eximbank Japan, and Argentina's own resources)	Old claims exchanged at par for new bonds with a 30-year bullet maturity and interest increasing gradually from 4 percent in year one, to 6 percent in year seven, and remaining at that level until maturity.	Principal fully collateralized and 12-month rolling interest guarantee based on 6 percent rate.	
Bolivia (1987)						
Cash buy-back	253	--	28 (bilateral donations)	At pre-announced price of 11 cents on the dollar.	--	--
Collateralized debt exchange with principal reduction	204	22	7 (bilateral donations)	Old claims exchanged for new zero-coupon 25-year bond carrying 9.25 percent yield at a preannounced exchange ratio of 1:0.11.	Principal and interest fully collateralized.	Past due interest canceled under all options. New bonds eligible for debt conversions.
Debt forgiveness	16	--	--	--	--	Includes US$0.6 million of debt-for-nature swap.

Table A3 (continued). Debt and Debt Service Reduction in Commercial Bank Agreements, 1987-July 1994

(By year of agreement in principle)

	Face Value of Debt to Commercial Banks Retired	Issued	Resources Used	Terms	Enhancements for New Instruments	Special Features
	(In millions of U.S. dollars)					
Bolivia (1992)						
Cash buy-back	78	--	... (27 (including (resources from (IDA debt reduction (facility and grants	At preannounced price of 16 cents on the dollar.	--	Past due interest canceled under all options.
Interest reduction	33	33	... (from the United (States, Sweden,	Old claims exchanged at par for non-interest-bearing new bonds with a 30-year bullet maturity.	Principal fully collateralized	Value recovery clause based on the world price of tin.
Principal reduction	60	10	... ((Switzerland, and (the Netherlands)	Old claims exchanged for new short-term bonds at pre-negotiated exchange ratio of 1:0.16	--	Upon maturity, bonds exchanged into assets denominated in domestic currency at pre-negotiated ratio of 1:1.5 for approved investment in special projects.
Brazil (1988)						
Noncollateralized debt exchange with interest reduction	1,100	1,100	--	Old claims exchanged at par for new exit bonds with 25-year maturity (10 years' grace) and 6 percent fixed rate.	--	New bonds excluded from future new money base. Eligible for debt-equity conversion program.
Brazil (1992)						
Principal reduction	14,210	9,237	(2,800 (own resources (and about 400 of new (money.) Additional 900 (are to be delivered in (the next two years.	Old claims exchanged for new bonds with a 30-year bullet maturity and interest at LIBOR plus 13/16, at pre-negotiated exchange ratio of 1:0.65.	Principal fully collateralized and 12-month rolling interest guarantee.	(Cash payment of US$2.0 bil- (lion paid during May-December 1991. (The past due interest remaining at (end-1990 converted into a 10-year (bond (3 years' grace) at LIBOR plus (13/16. Interest due in 1992-93 (reduced to 4 percent.
Interest reduction	12,992	12,992	((((((	Old claim exchanged at par for new bonds with a 30-year bullet maturity and interest increasing gradually from 4 percent in year one, to 6 percent in year seven, and remaining at that level until maturity.	Principal fully collateralized and 12-month rolling interest guarantee.	
Temporary interest reduction	2,030	2,030	(((((	Old claim exchanged at par for new bonds with a 15-year maturity (9 years' grace) and an interest rate of 4 percent in the years 1-2, 4.5 percent in years 3-4, 5 percent in years 5-6, and LIBOR plus 13/16 from years 7 to 15.	Twelve-month rolling interest guarantee for the first six years.	(Remaining past due interest accumulated (in 1991 and 1992 is converted into (12-year bonds (3 years' grace) at LIBOR (plus 13/16; semi-annual amortization (payments of 1 percent of original (principal for payments 1-7, 5 percent (for payment 8, and 8 percent bonds (eligible for debt conversions for (payment 9-19.

Table A3 (continued). Debt and Debt Service Reduction in Commercial Bank Agreements, 1987-July 1994

(By year of agreement in principle)

	Face Value of Debt to Commercial Banks: Retired	Face Value of Debt to Commercial Banks: Issued	Resources Used	Terms	Enhancements for New Instruments	Special Features
	(In millions of U.S. dollars)					
Bulgaria (1993)						
Cash buyback	835	--	(... (expected to come (from IMF, World Bank and (own resources.)	At preannounced price of 25.1875 cents on the dollar.	--	Buyback price applies to principal and interest arrears separately.
Principal reduction	4,014	2,007		Old claims exchanged for new bonds, with a 30-year bullet maturity and interest at LIBOR plus 13/16, at pre-negotiated exchange ratio of 1:0.50.	Principal fully collateralized and 12-month rolling interest	(At closing 3 percent of (past due interest will be guarantees based on 7 percent. (settle through cash payments. (The balance will be refinanced (as an uncollateralized 17-year (bond (7 years' grace) bearing (interest of LIBOR plus 13/16 and (semi-annual amortization payments (rising from 1 percent of the original (face value in payments 1-6 to 3 percent (in payments 7-11, to 6 percent in (payments 17-21 and to 9.8 percent in (payments 17-21. Value recovery clause (based on GDP performance. Package (includes short-term debt. A special (issue of discount and temporary (interest reduction bonds will be made (for 30 percent of the short-term (allocated to these options at an (interest rate 1/2 percent higher. The (package includes a currency option for (deutschmarks. Agreement limits (allocation for temporary interest (reduction bonds to 30 percent.
Temporary interest reduction	1,775	1,775		Old claims exchanged at par for new bonds with a 18-year maturity (7 years' grace) and an interest rate of 2 percent in years 1-2, 2.25 percent in year 3-4, 2.5 percent in year 5, 2.75 percent in year 6, 3 percent in year 7, and LIBOR plus 13/16 from year 8 to 18.	Twelve-month rolling interest guarantee for the first seven years.	
Chile (1988)						
Cash buy-backs	439	--	(248 (own resources)	US$299 million bought back in November 1988 at average price of 56 cents on the dollar; US$140 bought back in November 1989 at average price of 58 cents on the dollar. Price determined in Dutch auction.	--	Resources used for buy-backs subject to aggregate limit of US$300 million; debt to be extinguished subject to aggregate ceiling of US$2 billion.

Table A3 (continued). Debt and Debt Service Reduction in Commercial Bank Agreements, 1987-July 1994

(By year of agreement in principle)

	Face Value of Debt to Commercial Banks: Retired	Issued	Resources Used	Terms	Enhancements for New Instruments	Special Features
	(In millions of U.S. dollars)					
Costa Rica (1989)						
Cash buy-back	991	--		At preannounced price of 16 cents on the dollar.	--	Includes US$223 million of past due interest.
Collateralized debt exchanges with interest reduction	290	290	196 2/ (from bilateral and multilateral sources and Costa Rica's own reserves)	(a) Old debt exchanged at par for new 20-year bond (10 years' grace) carrying 6.25 percent fixed, negotiated rate.	(a) Eighteen-month interest guarantee (excess enhance-funds to be applied to increase coverage up to 18 months).	(a) and (b) available only to banks tendering at least 60 percent of their exposure to the buy-back option. Value recovery clause linked to GDP growth. Converted past due interest equaled US$53 million.
				(b) Past due interest, after 20 percent cash downpayment, exchanged at par for a new claim with a 15-year maturity (no grace period) and LIBOR plus 13/16.	(b) Thirty-six month interest guarantee.	(c) and (d) optional to banks tendering less than 60 percent of their exposure (including past due interest) to the buy-back option. Converted past due interest equaled US$61 million.
Noncollateralized debt exchange with interest reduction	289	289		(c) Old claims (including past due interest) exchanged at par for a new 25-year bond (15 years' grace) carrying 6.25 percent fixed, negotiated rate.	--	(a), (b), (c), and (d): new bonds eligible for debt-equity conversion program.
				(d) Past due interest, after a 20 percent cash downpayment, exchanged at par for a new claim with a 15-year maturity (no grace period) and LIBOR plus 13/16.		Value recovery clause activated if GDP exceeds 1989 GDP by 120 percent in real terms.

Table A3 (continued). Debt and Debt Service Reduction in Commercial Bank Agreements, 1987-July 1994

(By year of agreement in principle)

	Face Value of Debt to Commercial Banks Retired	Issued	Resources Used	Terms	Enhancements for New Instruments	Special Features
	(In millions of U.S. dollars)					
Dominican Republic (1993)						
Cash buy-back	272	--	(149 (own resources)	At preannounced price of 25 cents on the dollar.	--	Buy-back price applies to principal and interest arrears separately.
Principal reduction	505	328	(	Old claims exchanged for new bonds with 30-year bullet maturity and interest at LIBOR plus 13/16 at pre-negotiated exchange rate of 1:0.65.	Principal fully collateralized and 9-month rolling interest guarantee (to be capitalized until 12 months).	At closing 12.5 percent of remaining past due interest will be settled through cash payments. The balance will be refinanced as uncollateralized 15-year bond (3 years' grace) bearing interest of LIBOR plus 13/16 and semi-annual amortization payments rising from 1 percent of the original face value in payments 1-7 and equal installments thereafter.
Temporary interest reduction	—	—	(	Old claims exchanged at par for new bonds with a 18-year maturity (9 years' grace) with equal semi-annual installments after grace and an interest rate of 3 percent in years 1-2, 3.5 percent in years 3-4, 4 percent in years 5-6, and LIBOR plus 13/16 from years 7 to 18.	--	Agreement included a "pull-back" clause if banks' allocation does not yield at least 50 percent debt reduction.

Table A3 (continued). Debt and Debt Service Reduction in Commercial Bank Agreements, 1987-July 1994

(By year of agreement in principle)

	Face Value of Debt to Commercial Banks Retired	Face Value of Debt to Commercial Banks Issued	Resources Used	Terms	Enhancements for New Instruments	Special Features
	(In millions of U.S. dollars)					
Ecuador (1994)						
Principal reduction	...	...	(... expected to (come from IMF, (World Bank, official (sources and own (resources)	Old claims exchanged for new bonds with 30-year bullet maturity and interest at LIBOR plus 13/16 at pre-negotiated exchange rate of 1:0.55.	Principal fully collateralized and 12-month rolling interest guarantee based on 7 percent	Part of past due interest settle before closing (through cash payment of US$75 million). The balance will be refinanced as an uncollateralized 20-year bond (10 years' grace bearing interest of LIBOR plus 13/16 and semi-annual amortization payments rising from 2.5 percent of the original face value in payments 1-6 to 4 percent in payments 7-12, to 6.78 percent in payments 13-21. The PDI bond will have the option to capitalize interest due in excess of the following rates during the first 6 years of the bond: 3 percent in years 1-2; 3.25 percent in years 3-4 and 3.75 percent in year 5-6. An uncollateralized 10-year interest equalization bond for US$191 million will be issued to regularize presently discriminatory payments to creditor.
Interest reduction	...	...		Old claims exchanged at par for new bonds with 30-year bullet maturity and interest increasing gradually from 3 percent in year one to 5 percent in year 11, and remaining at that level until maturity.	Principal fully collateralized and 12-month rolling interest guarantee at 3.75 percent (to be capitalized until it reaches 5 percent).	
Guyana (1992)						
Cash buy-back	69	--	(10 (fully financed (by IDA debt- (reduction facility).	At preannounced price of 14.5 cents on the dollar.		Excludes export credit debt. Buy-back price applied to principal, past due interest (US$23.5 million) canceled.

Table A3 (continued). Debt and Debt Service Reduction in Commercial Bank Agreements, 1987-July 1994

(By year of agreement in principle)

	Face Value of Debt to Commercial Banks Retired	Issued	Resources Used	Terms	Enhancements for New Instruments	Special Features
	(In millions of U.S. dollars)					
Jordan (1993)						
Cash buy-back	--	--	(118 (own resources)	At preannounced price of 39 cents on the dollar.	--	Buy-back price applies to principal and interest arrears separately.
Principal reduction	243	158		Old claims exchanged for new bonds with a 30-year bullet maturity and interest at LIBOR plus 13/16 at pre-negotiated exchange ratio of 1:0.65.	Principal fully collateralized and 6-month rolling interest guarantee based on 8 percent.	At closing, 50 percent of past due interest with the discount exchange and 10 percent of past due interest associated with the par exchange will be settled through cash payments. The balance will be refinanced as uncollateralized 12-year bond (3 years' grace) bearing interest of LIBOR plus 13/16 and equal semi-annual installments after grace.
Interest reduction	493	493		Old claims exchanged at par for new bonds with a 30-year bullet maturity and interest increasing gradually starting at 4 percent in years 1-4, 5 percent in year 5, 5.5 percent in year 6 and 6 percent from years 7 to 30.	Principal fully collateralized and 6-month rolling interest guarantee based on 6 percent.	Interest due after March 1991 and until the closing date reduced to an interest rate of 4 percent.
Mexico (1988)						
Collateralized debt exchange with principal reduction	3,671	2,556	555 (own resources)	Old claims exchanged for new bond with 20-year bullet maturity and LIBOR plus 1 5/8; average exchange ratio 1:0.7 (determined in Dutch auction).	Principal fully collateralized.	New bonds excluded from future new money base.
Mexico (1989)						
Collateralized debt exchanges						
Principal reduction	20,546	13,354 3/	(7,122 (including (resources from IMF (and World Bank)	Old claims exchanged for new bond with 30-year bullet maturity and LIBOR plus 13/16; exchange ratio 1:0.65 (negotiated).	Principal fully collateralized and 18-month rolling interest guarantee.	(Recovery clause in case real oil (prices exceed threshold real price (of US$14 a barrel. New bonds excluded (from future new money base and (eligible for debt-equity conversion.
Interest reduction	22,427	22,427		Old claims exchanged at par for new bond with 30-year bullet maturity and 6.25 percent fixed, negotiated interest rate.	Same as above	

Table A3 (continued). Debt and Debt Service Reduction in Commercial Bank Agreements, 1987-July 1994

(By year of agreement in principle)

	Face Value of Debt to Commercial Banks Retired	Face Value of Debt to Commercial Banks Issued	Resources Used	Terms	Enhancements for New Instruments	Special Features
	(In millions of U.S. dollars)					
Mozambique (1991)						
Cash buy-back	124	--	12 (including resources from IDA debt reduction facility and French Swiss, Swedish and Dutch grants)	At the preannounced price of 10 cents on the dollar.	--	Buy-back price applied to principal, past due interest canceled.
Niger (1991)						
Principal reduction	111	--	(23 (including resources (from IDA debt reduction (facility and French and (Swiss grants) (	Old claims exchanged for new 60-day notes with face value equivalent to 18 percent of outstanding face value of principal	Principal fully guaranteed by BCEAO	Buy-back price applied to principal, past due interest canceled. Operation has been structured as a novation, that is, the exchange of a new obligation for an old obligation to avoid seeking waivers from certain provisions in existing loan contracts.
Interest reduction	...	...	(((((	Old claims exchanged at par for 21-year non-interest-bearing notes.	Principal fully collateralized by zero coupon bonds purchased by the BCEAO.	--
Nigeria (1991)						
Cash buy-back	3,390	1,356	((1,708 4/ (own resources)	At preannounced price of 40 cents on the dollar.		All past due interest cleared prior to closing date. Recovery clause in the event that oil prices exceed threshold of US$28 a barrel in 1996, adjusted for inflation thereafter. New bonds eligible for debt conversions.
Interest reduction	2,048	2,048	(	Old claims exchanged at par for new registered bonds with a 30-year bullet maturity and a fixed interest rate of 5.5 percent for 3 years and 6.25 percent thereafter.	Principal fully collateralized by U.S. Treasury bonds with a 12-month rolling interest guarantee, based on rate of 6.25 percent.	
Philippines (1989)						
Cash buy-back	1,339	--	(670 (including resources from IMF and World Bank)	At preannounced price of 50 cents on the dollar.	--	Included waiver for second round of buy-backs.

Table A3 (continued). Debt and Debt Service Reduction in Commercial Bank Agreements, 1987-July 1994

(By year of agreement in principle)

	Face Value of Debt to Commercial Banks		Resources Used	Terms	Enhancements for New Instruments	Special Features
	Retired	Issued				
	(In millions of U.S. dollars)					
Philippines (1992)						
Cash buy-back	1,263	--	1,125 (including resources from IMF, World Bank, Eximbank Japan, and the Philippines' own resources)	At a preannounced price of 52 cents on the dollar.	--	--
Temporary interest rate reduction	757	757		Old claims exchanged at par for new bonds with 15-year maturity (7 years' grace) and an interest rate of 4 percent in the first two years, 5 percent in years 3-5, 6 percent the year 6, and LIBOR plus 13/16 from year 7 and onward.	Twelve-month rolling interest guarantee based on a 6 percent annual rate for the first six years.	--
Principal collateralized interest reduction	1,894	1,894		Old claims exchanged at par for new bonds with a 25-year bullet maturity and an interest rate that gradually rises from 4.25 percent in the first year to 6.5 percent in the sixth year and remains at that level until maturity.	Principal fully collateralized and 14 months rolling interest guarantee based on a rate of 6.5 percent.	--

Table A3 (continued). Debt and Debt Service Reduction in Commercial Bank Agreements, 1987-July 1994

(By year of agreement in principle)

	Face Value of Debt to Commercial Banks: Retired	Issued	Resources Used	Terms	Enhancements for New Instruments	Special Features
	(In millions of U.S. dollars)					
Poland (1994)						
Cash buy-back	...	...	... (expected to come from IMF, World Bank, official sources and own resources)	At a preannounced price of 41 cents on the dollar for medium-and long-term debt and 38 cents on the dollar for short-term debt.	--	--
Principal reduction	...	...		Old claims exchanged for new bonds with a 30-year bullet maturity and interest at LIBOR plus 13/16 at pre-negotiated exchange ratio of 1:0.55.	Principal fully collateralized; no interest collateral.	
Interest reduction	...	...		Old claims exchanged at par for new bonds with a 30-year bullet maturity and interest increasing gradually from 2.75 percent in year one to 5 percent from year 21.	Principal fully collateralized; no interest collateral.	Separate par bonds with slightly different interest profile for medium- and long-term and short-term debt. Payment of 85 percent of interest due in December 1989 and 30 percent of interest due accruing from May 1993 expected before closing. The balance will be subject to debt service reduction through an uncollateralized 20-year bond (7-years' grace) bearing an interest rate gradually increased from 3.25 percent in year one to 7 percent in year 9 and remaining at that level until maturity. Amortization payments are semi-annual rising from 1 percent of the original face value in payments 1-3 to 2 percent in payments 4-6, to 3 percent in payments 7-17, to 5 percent in payments 18-23, to 7 percent in payments 24-27.
Noncollateralized debt exchange with interest reduction	...	...		Old claims exchanged at par for debt conversion bonds with 25-year maturity (20 years grace) and interest increasing gradually from 4.5 percent in year one to 7.5 percent from year 11 and remaining at that level until maturity.	--	
Uganda (1993)						
Cash buy-back	153	--	18 (including resources from IDA debt-reduction facility and grants from the Netherlands, Switzerland, Germany, and the EC)	At a preannounced price of 12 cents on the dollar.		Buy-back price applied to principal, past due interest canceled.

Table A3 (concluded). Debt and Debt Service Reduction in Commercial Bank Agreements, 1987-July 1994

(By year of agreement in principle)

	Face Value of Debt to Commercial Banks		Resources Used	Terms	Enhancements for New Instruments	Special Features
	Retired	Issued				
	(In millions of U.S. dollars)					
Uruguay (1991)						
Cash buy-back	633	--	((463 (including resources	At preannounced price of 56 cents on the dollar.		
Interest reduction	530	530	(from the IDB) ((	Old claims exchanged at par for new bonds with a 30-year bullet maturity and a fixed interest rate of 6.75 percent.	Principal fully collateralized and an 18-month rolling interest guarantee.	Value recovery clause allowing for larger payments in the event of a favorable performance of an index of Uruguay's terms of trade.
Venezuela (1990)						
Collateralized debt exchanges			(			
Principal reduction	1,411	647	((((	Old claims exchanged for new three-month notes with present value equal to 45 percent of face value of old claims.	Face value of notes fully collateralized by short-term U.S. Treasury securities.	
Principal reduction	1,808	1,265	(2,585 5/(including (resources from IMF and (World Bank) ((	Old claims exchanged for new bond with 30-year maturity and LIBOR plus 13/16 at pre-negotiated exchange ratio of 1:0.70.	Principal fully collateralized and 14-month rolling interest guarantee.	(Eligible for debt-equity conversion. (Includes warrants to be triggered in (case oil prices exceed threshold price (of US$26 a barrel in 1996, adjusted for (inflation thereafter through 2020.
Interest reduction	7,450	7,450	((((	Old claims exchanged at par for new bond with 30-year maturity and fixed interest rate of 6.75 percent.	Principal fully collateralized and 14-month rolling interest guarantee.	(((
Temporary interest reduction	3,018	3,018	(((((	Old claims exchanged for new bond with 17-year maturity and interest rate of 5 percent for the 1-2 years, 6 percent for years 3-4, 7 percent for year five, and LIBOR plus 7/8 of 1 percent thereafter.	Twelve-month rolling-interest guarantee for the first five years.	(Eligible for debt-equity conversion. ((((
Zambia (1994)	414	--	(...	At a preannounced price of 11 cents on the dollar.		Buyback price applied to principal, past due interest canceled.

Sources: Debt-restructuring agreements; and IMF staff estimates.

Note: BCEAO = Banque Centrale des Etats de L'Afrique de L'Ouest; IDA = International Development Association.

1/ Excludes US$700 million in downpayment on past due interest.
2/ Excludes US$29 million in downpayment on past due interest.
3/ Includes US$2,447 million of debt of domestic commercial banks, for which no enhancements were provided (the Gurria bonds).
4/ Excludes US$373 million of cash payments to clear all interest arrears.
5/ Including about US$210 million used to offer comparable collateral for bonds issued prior to 1990.

Table A4. Granger Causality Tests on Daily Data of Brady Par Bond Prices 1/

Dependent Variable	Independent Variable	Coefficient for Independent Variable (β_i)	T-Value		Sample Period
Argentina	Mexico	0.0276	2.2250	(*)	01/02/91-06/20/94
Brazil	Mexico	0.0499	2.2753	(*)	07/30/93-06/20/94
Venezuela	Mexico	-0.0022	-0.6335		01/02/91-06/20/94
Philippines	Mexico	0.0173	3.7506	(**)	01/02/91-06/20/94
Nigeria	Mexico	0.0056	1.6855		01/02/91-06/20/94
Mexico	Argentina	-0.0088	-1.4816		01/02/91-06/20/94
	Brazil	-0.0053	-0.8010		07/30/93-06/20/94
	Venezuela	0.0034	0.9191		01/02/91-06/20/94
	Philippines	-0.0047	-1.1291		01/02/91-06/20/94
	Nigeria	0.0021	0.4741		01/02/91-06/20/94

Source: Reuters Data Base.

1/ The following regression was tried for different lags (i.e., different values of k). If Granger causality was found for k > 1, only the value for k = 1 is reported here:

$$y_t = \sum_{i=1}^{k} \alpha_i y(t-i) + \sum_{i=1}^{k} \beta_i x_{t-i} + u_t$$

where if $\beta_i = 0$ ($i = 1,2,3,\ldots,k$), x_t fails to cause y_t.

Table A5. Granger Causality Tests on Daily Data of Sovereign Eurobond Prices 1/

Dependent Variable	Independent Variable	Coefficient for Independent Variable (β_i)	T-Value	Sample Period
Argentina (1)	Mexico (1)	-0.0042	-1.4189	09/13/91-10/06/93
(2)		0.0118	1.8193	09/30/92-06/24/94
Brazil (1)	Mexico (1)	0.0041	1.5429	05/22/92-06/24/94
(2)		0.0107	3.1970 (**)	09/18/91-06/24/94
Venezuela (1)	Mexico (1)	0.0339	3.3307 (**)	03/09/93-06/24/94
(2)		0.0279	3.3978 (**)	08/23/91-06/24/94
(3)		0.1271	2.1626 (*)	11/14/91-06/24/94
Philippines(1)	Mexico (1)	0.0129	2.5320 (*)	02/23/93-06/24/94
(2)		0.0808	3.7377 (**)	07/22/93-06/24/94
Turkey (1)	Mexico (1)	0.0234	3.6438 (**)	07/31/90-06/24/94
Hungary (1)	Mexico (1)	0.0653	5.3052 (**)	06/21/91-06/24/94
Mexico (1)	Argentina (1)	0.0121	2.8046 (**)	09/13/91-10/06/93
	(2)	-0.0016	-0.6937	09/30/92-06/24/94
	Brazil (1)	-0.0023	-1.2590	05/22/92-06/24/94
	(2)	-0.0035	-0.7198	09/18/91-06/24/94
	Venezuela (1)	-0.0009	-0.1339	03/09/93-06/24/94
	(2)	0.0013	0.5037	08/23/91-06/24/94
	(3)	0.0016	0.6114	11/14/91-06/24/94
	Philippines (1)	-0.0065	-1.3571	02/23/93-06/24/94
	(2)	-0.0028	-0.3609	07/22/93-06/24/94
	Turkey (1)	0.0059	1.6003	07/31/90-06/24/94
	Hungary (1)	-0.0039	-1.4616	06/21/91-06/24/94

Source: Reuters Data Base.

1/ The following regression was tried for different lags (i.e., different values of k). If Granger causality was found for k > 1, only the value for k = 1 is reported here:

$$y_t = \sum_{i=1}^{k} \alpha_i y_{(t-i)} + \sum_{i=1}^{k} \beta_i x_{t-i} + u_t$$

where if $\beta_i = 0$ ($i = 1,2,3,\ldots,k$), x_t fails to cause y_t.