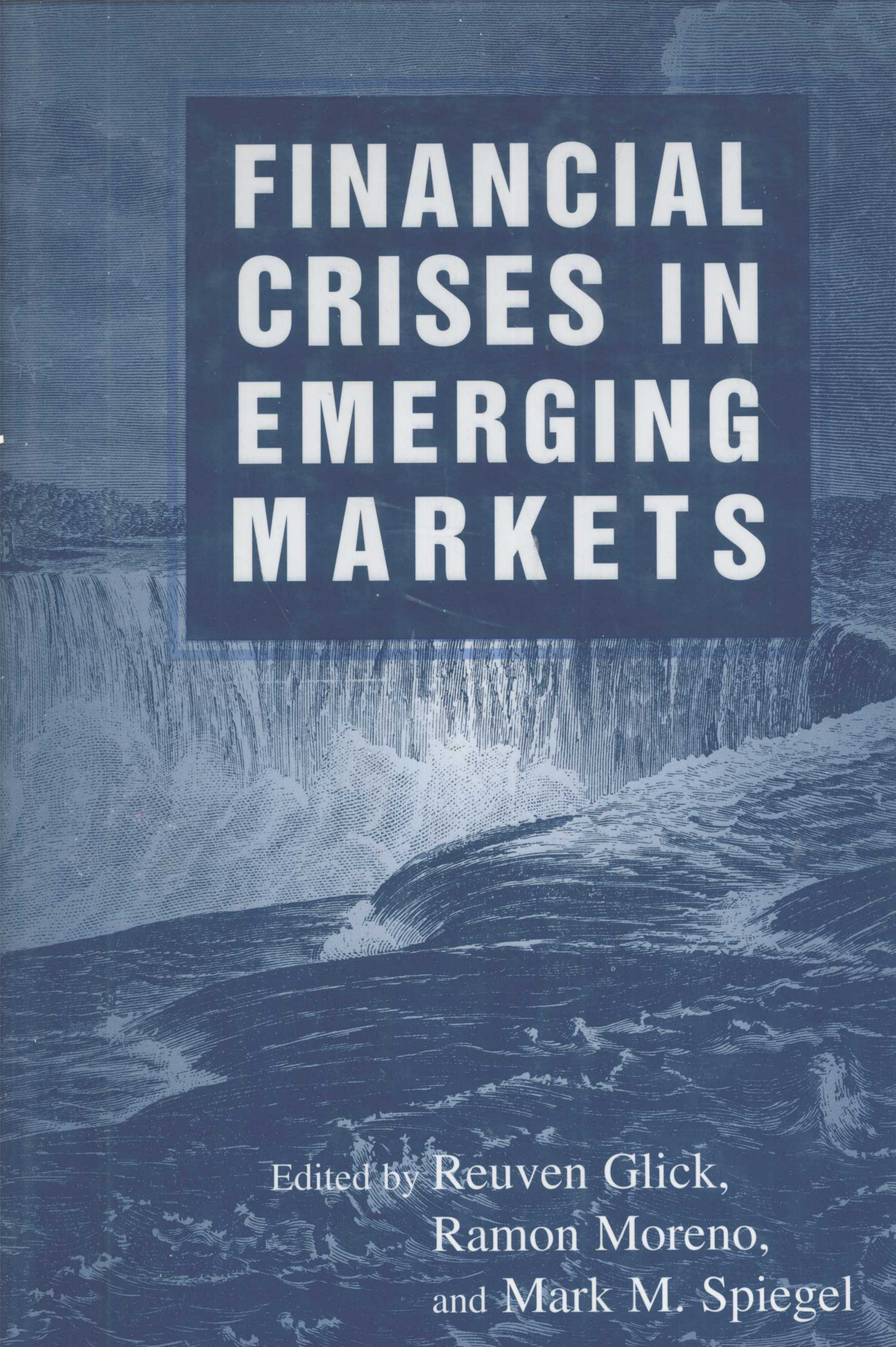

FINANCIAL CRISES IN EMERGING MARKETS

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and Mark M. Spiegel

Financial Crises in Emerging Markets

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Preface

The essays in this volume provide a comprehensive analysis by distinguished economists of the theoretical and policy issues associated with recent financial crises in emerging markets. These essays are complemented by the comments of an equally distinguished set of discussants. The essays were originally prepared for a conference sponsored by the Center for Pacific Basin Monetary and Economic Studies at the Federal Reserve Bank of San Francisco on September 23–24, 1999. The conference brought together academics, central bankers, and other policymakers and researchers to review and compare the experiences of emerging market countries.

The conference was conceived with two purposes. First, it served as a natural sequel to a prior conference held at the Bank in September 1996, after the Mexican peso crisis of 1994–1995. The 1996 conference focused primarily on understanding the causes and policy responses to capital inflows and explaining why countries in Asia seemed different from Mexico and less vulnerable to currency and banking crises. At the time it appeared that East Asian countries had achieved a more successful approach to capital flow and exchange rate management. Since then, we have learned (or have been reminded) that all countries, even fast-growing Asian economies, can experience financial crises.

A second purpose of the conference was to carry on the Bank's Pacific Basin research program. Since 1974, the program has promoted cooperation among central banks in the Pacific Basin and sponsored research on major monetary and economic policy issues in the region. The Center for Pacific Basin Monetary and Economic Studies was established by the Bank in 1990 to open the program to greater participation by visiting scholars. The program was also augmented by the creation of a formal network of researchers in other central banks, universities, research institutes, and international organizations who share the Bank's recognition of the importance of Pacific Basin economic issues.

The Pacific Basin research agenda has been supported through the contributions of the Bank's own research staff as well as through international conferences. This work has been published in the Bank's *Economic Review*, academic journals, and conference volumes. Previously published conference volumes include: *Financial Policy and Reform in Pacific Basin Countries* (Lexington Books, 1986) and *Monetary Policy in Pacific Basin Countries* (Kluwer Press, 1988), both edited by Hang-Sheng Cheng; *Exchange Rate Policy and Interdependence: Perspectives from the Pacific Basin*, edited by Reuven Glick and Michael Hutchison (Cambridge University Press, 1994); and *Managing Capital Flows and Exchange Rates: Perspectives from the Pacific Basin*, edited by Reuven Glick (Cambridge University Press, 1998).

This book is the joint product of many people. Besides the contributing authors and discussants, special thanks are due to Regina Paleski and Robert Golden, for their work as production editor and copy editor, respectively; and Chrystie Nguyen, for her key role in organizing the conference, handling correspondence with the authors, and typing portions of the manuscript.

Finally, any opinions expressed in this volume are those of the respective contributors and do not necessarily reflect the views of the organizations with which they are associated. Nor do they reflect the views of the Federal Reserve Bank of San Francisco or of the Board of Governors of the Federal Reserve System.

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Contents

Preface *page* vii
Contributors ix

1 **Financial Crises in Emerging Markets: An Introductory Overview** 1
Reuven Glick, Ramon Moreno, and Mark M. Spiegel

PART I DETERMINANTS AND PROPAGATION OF FINANCIAL CRISES

2 **Banking and Currency Crises: How Common Are Twins?** 35
Reuven Glick and Michael M. Hutchison
Discussion 70
Andrew K. Rose

3 **Multiple Equilibria, Contagion, and the Emerging Market Crises** 73
Paul R. Masson
Discussion 99
Paolo Pesenti

4 **How Are Shocks Propagated Internationally? Firm-Level Evidence from the Russian and East Asian Crises** 106
Kristin Forbes
Discussion 160
Kenneth Kasa

PART II CAPITAL FLOWS AND REVERSALS

5 **Uncertainty and the Disappearance of International Credit** 167
Joshua Aizenman and Nancy Marion
Discussion 191
Mark M. Spiegel

6 International Capital Inflows, Domestic Financial Intermediation, and Financial Crises under Imperfect Information 196
Menzie D. Chinn and Kenneth M. Kletzer
Discussion 238
Roberto Chang

7 Private Inflows when Crises Are Anticipated: A Case Study of Korea 243
Michael P. Dooley and Inseok Shin
Discussion 275
Carmen M. Reinhart

PART III INSTITUTIONAL FACTORS AND FINANCIAL STRUCTURE

8 Excessive FDI Flows under Asymmetric Information 283
Assaf Razin, Efraim Sadka, and Chi-Wa Yuen
Discussion 302
Maurice Obstfeld

9 Corporate Growth and Risk around the World 305
Stijn Claessens, Simeon Djankov, and Tatiana Nenova
Discussion 339
Richard K. Lyons

PART IV POLICY RESPONSES

10 Interest Rate Stabilization of Exchange Rates and Contagion in the Asian Crisis Countries 347
Robert Dekle, Cheng Hsiao, and Siyan Wang
Discussion 380
Pierre-Richard Agénor

11 The Impact of Monetary Policy on Exchange Rates during Financial Crises 384
David Gould and Steven Kamin
Discussion 421
Henning Bohn

12 Capital Controls during Financial Crises: The Cases of Malaysia and Thailand 427
Hali J. Edison and Carmen M. Reinhart

Index 457

1

Financial Crises in Emerging Markets:
An Introductory Overview

Reuven Glick, Ramon Moreno, and Mark M. Spiegel

1.1 INTRODUCTION

Increasing openness and economic liberalization have been credited with fostering higher growth and record capital inflows in many emerging market countries. For many countries, especially in Asia but to some extent also in Latin America, the first part of the 1990s was characterized by considerable optimism and buoyant growth. However, this optimism has been tempered by recent financial crises, beginning with Mexico in 1994–1995, the Asian crisis of 1997–1998, and the crises in Russia, Brazil, and several other Latin American countries in 1998–1999. These crises have been costly to varying degrees – particularly where banking sector problems have been involved – both in terms of lost output and the fiscal expenditures to restore fragile financial sectors.

The recent crises illustrate the risks of financial volatility and macroeconomic instability during the process of economic growth and development. They also raise issues regarding the management of risks associated with liberalization and global integration, particularly in financial markets. Concerns about the implications of international capital flows for developing countries have grown with the sharply increased volume of these flows since the late 1980s. Some have argued that emerging markets have been the innocent victims of mercurial global investors, while others have questioned the appropriateness of specific polices in the emerging markets themselves.

The essays in this volume provide a comprehensive analysis of the theoretical and policy issues associated with recent financial crises in emerging markets. To provide a broad perspective, this chapter presents an overview of the common elements of these crises and the issues they have raised, as well as an analytical summary of the essays themselves.

1.2 COMMON ELEMENTS OF FINANCIAL CRISES

Recent financial crises in emerging markets share several features: (1) They occurred after extensive liberalization, particularly in financial markets, (2) they were preceded by significant capital inflow surges that subsequently ceased abruptly, (3) at the time of the crises, relatively rigid nominal exchange rate regimes tended to be in place, (4) unhedged foreign currency and interest rate exposure was high, and (5) the crises tended to be widespread, involving a number of countries simultaneously.

1.2.1 Liberalization and Global Integration

In recent years, economic reform, liberalization, and global integration have been key elements of the development strategy of almost all developing countries. During the late 1980s and early 1990s, most Latin America countries – particularly Mexico, Chile, and Argentina – undertook ambitious reforms aimed at modernizing their economies.[1] Although the details varied across countries, stabilization programs and fiscal consolidation were implemented to reduce inflation. Deregulation and privatization were undertaken to reduce the importance of the government in the economy, and product markets were generally opened to greater international competition. In addition, domestic financial markets were liberalized, with credit controls and lending restrictions removed, access to international financial markets improved, and the permissible activities of domestic financial institutions expanded. For example, over the period 1990–1992, Mexico privatized the 18 banks that had been nationalized in 1982–1983 during the debt crisis.

The Asian growth "miracle" over the past thirty years was largely the result of liberalization and opening of real sectors across the region. In contrast, Asian financial sectors were relatively less developed, with domestic credit often channeled through the banking sector to particular privileged domestic sectors and firms, though usually in accordance with export-promoting industrial policy. Beginning in the 1980s, financial markets were liberalized gradually across the region, first by allowing more market-oriented adjustment of interest rates and allocation of credit, and later by permitting domestic financial institutions greater freedom in asset and liability management. In Indonesia, for example, the number of private banks nearly tripled from 1988 to 1994. In

[1] Prior reform and liberalization efforts during the 1970s were largely aborted as a result of the 1982–83 debt crisis.

Thailand, credit expansion by commercial banks was limited by regulation, but financial liberalization in the 1990s led to the emergence of non-bank intermediaries that were largely unregulated.

At the beginning of the 1990s, policies towards international capital flows in East Asian emerging markets ranged from quite open (Hong Kong, Singapore) to significantly regulated (Korea). Measures adopted in the late 1980s and early 1990s to liberalize the capital account or develop offshore markets encouraged greater integration with global financial markets. However, existing restrictions or market conditions still limited foreign entry into onshore markets as well as direct access to domestic securities issuers or non-bank borrowers. This approach to financial market development ensured that domestic financial institutions would continue to play a significant intermediation role, and in some cases it encouraged the accumulation of short-term debt.

In Thailand, innovations fostering greater capital market integration included the establishment in 1993 of the Bangkok International Banking Facility (BIBF), which encouraged short-term borrowing and lending in foreign currencies, both onshore and offshore. Strong tax incentives were given to foreign banks, particularly from Japan, to lend at low rates to Thai institutions through the BIBF. Foreign banks participated actively in the BIBF, but restrictions to direct entry in the onshore market remained in place, so a significant amount of foreign borrowing was intermediated through domestic financial institutions. In Korea, regulations limiting corporate borrowing or bond issuance abroad also encouraged short-term international borrowing through the domestic financial system. The accession of Korea to the Organization for Economic Co-operation and Development (OECD) in 1996 made lending to Korean banks even more attractive, by lowering the perceived risk and providing regulatory advantages for some forms of credit. (The risk weights under the Basle accord fell to 20 percent from 100 percent for long-term loans, but were unchanged at 20 percent for loans up to one year maturity.)

Some efforts were at times made to contain short-term inflows, but these policies did not consistently reduce the vulnerability of domestic financial sectors to shocks. For example, in the early 1990s, Indonesia imposed ceilings on foreign borrowing (particularly on short-term inflows) by the banking sector. At the same time, however, Indonesian corporations were given greater freedom to borrow abroad for purposes of trade financing. In addition, the extent of foreign borrowing by these corporations was typically unhedged and apparently not effectively monitored; this borrowing was a major element in Indonesia's 1997 financial crisis.

1.2.2 Capital Inflows and Reversals

The Mexican and Asian crises were preceded by substantial capital inflows to developing countries. Total net private capital inflows to developing countries rose from an annual average of $9 billion over the period 1983–1989 to an average of $125 billion during 1990–1994 and peaked at $212 billion in 1996 (see Table 1.1). These capital inflows reflected a number of factors, including the search for higher yields on the part of international investors in an environment of low interest rates in industrial countries, strong macroeconomic and structural reform policies in many emerging markets, and capital account opening.

The bulk of net private capital flows to emerging markets went to Asia and Latin America. Capital flows to East Asia averaged $17 billion per year in the period 1983–1989, and rose to $95 billion in 1995 and $101 billion in 1996. In Latin America, resolution of the debt crisis of the early 1980s resulted in a shift from capital outflows averaging $17 billion a year during 1983–1989 to net inflows of $41 billion annually over 1990–1994. The inflows subsided to $38 billion in 1995, and then rebounded to $87 billion in 1997. The composition of the flows to these two regions differed, however. Inflows into Mexico and other Latin American countries were dominated by portfolio flows. In contrast, flows to Asia were dominated by bank lending flows.

When the crises broke out, sharp cutbacks in short-term financing occurred and access to international capital markets by many emerging countries was sharply curtailed. Capital flows to Latin America were abruptly reversed during the peso crisis in 1994–95. In Mexico portfolio flows fell from a peak inflow of $23 billion in 1993 to a net outflow of $14 billion in 1995 – a reversal of $37 billion. Flows to emerging Asia markets fell even more sharply as a result of crises in that region in 1997. For the most affected Asian countries – Thailand, Malaysia, the Philippines, Indonesia, and Korea – net inflows of $73 billion in 1996 were replaced by net outflows of $11 billion in 1997, largely as a result of a reversal of bank lending. Net capital inflows to emerging markets fell further in 1998, with much of the contraction occurring after Russia's forced debt restructuring, virtual default, and devaluation of August 1998.

1.2.3 Nominal Exchange Rate Rigidity and Unhedged Exposure

Nominal exchange rate pegs of one form or another were in place in almost every country that experienced financial difficulties. In the late 1980s a number of Latin American countries adopted exchange rate-based inflation stabilization programs, relying on the exchange rate as a

Table 1.1. Net Private Capital Flows to Emerging Markets

	Annual Averages (US$ billion)						
	1977–1982	1983–1989	1990–1994	1995	1996	1997	1998
By Asset:							
Total private capital flows	30.5	8.8	125.1	193.3	212.1	149.2	64.3
Net FDI	11.2	13.3	44.9	96.7	115.0	140.0	131.0
Net portfolio investment	–10.5	6.5	64.9	41.2	80.8	66.8	36.7
Bank loans and other	29.8	–11.0	15.2	55.4	16.3	–57.6	–103.5
By Region and Asset:							
Asia							
Total private capital flows	15.8	16.7	39.1	95.1	100.5	3.2	–55.1
Net FDI	2.7	5.2	23.4	49.8	55.1	62.6	50.0
Net portfolio investment	0.6	1.4	7.4	10.9	12.6	0.9	–15.4
Bank loans and other	12.5	10.1	8.3	34.4	32.8	–60.3	–89.7
Latin America							
Total private capital flows	26.3	–16.6	40.8	38.3	82.0	87.3	69.0
Net FDI	5.3	4.4	13.8	26.0	39.3	50.6	54.0
Net portfolio investment	1.6	–1.2	36.9	1.7	40.0	39.7	33.0
Bank loans and other	19.4	–19.8	–9.9	10.6	2.7	–3.1	–18.1
Other							
Total private capital flows	–11.6	8.7	45.2	59.9	29.7	58.7	50.4
Net FDI	3.2	3.7	7.8	20.9	20.6	26.7	27.2
Net portfolio investment	–12.7	6.3	20.6	28.7	28.3	26.2	19.1
Bank loans and other	–2.1	–1.3	16.8	10.3	–19.2	5.8	4.2

Sources: IMF *International Capital Markets*, 1995 for 1977–1989 data; IMF *International Capital Markets*, 1999 for 1990s data.

nominal anchor. Mexico's Pacto Plan involved initially fixing the peso against the dollar in October 1988, followed by a (gradual) preannounced depreciation within a band. Argentina's Convertibility Plan fixed its exchange rate to the dollar in April 1991. Brazil's Real Plan set a ceiling on the exchange rate relative to the dollar beginning in July 1994. Chile adopted a crawling peg regime in the mid-1980s. Although the stated exchange rate regimes of East Asian economies varied widely, ranging from unilateral pegs to the U.S. dollar (Hong Kong since 1983), to fixed or adjustable pegs to a currency basket (Indonesia, Malaysia, and Singapore; Korea until 1990; and Thailand since 1984), to managed floats (Korea since 1990), policymakers in almost all of these economies have tended to limit adjustment of their currencies against the U.S. dollar.

Investor confidence in the stability of these exchange rate pegs encouraged borrowers in emerging markets to take advantage of lower foreign interest rates through foreign borrowing without hedging foreign currency or interest rate risk. For example, in 1994 to refinance their domestic government debt cheaply and signal a commitment to their exchange rate policy, the Mexican authorities shifted from issuing peso-denominated debt to U.S.-dollar indexed short-term securities, known as *tesobonos*. The result was a massive increase in the government's foreign currency exposure. Foreign exchange risk exposure also played a key role in the Asian crisis, as both Asian banks and firms borrowed extensively in foreign currency.

Exposure to exchange rate risk was particularly troubling for commercial banks. As a legacy of financial liberalization, banks were particularly able to capitalize on interest rate differentials through foreign borrowing and domestic lending. However, the degree of exchange risk stemming from foreign borrowing by banks was commonly exacerbated by "maturity mismatching" – that is, financing long-term investment with short-term foreign liabilities. This exposed banks to the risk of having to refinance their short-term liabilities in the event of declines in the value of underlying assets.

1.2.4 Spillovers and Contagion

Recent crises were also accompanied by widespread spillover and contagion effects across countries. In the aftermath of the Mexican peso crisis that began in December 1994, the larger Latin American countries experienced varying degrees of volatility in their foreign exchange markets and declines in their equity markets. Argentina, though it successfully maintained its currency peg, suffered substantial costs in its defending its currency by keeping interest rates high. Asian currencies came under attack in mid-January 1995, and securities markets in some countries experienced sharp declines. After the floating of the Thai baht in July 1997 and the (unsuccessful) attack on the Hong Kong dollar in October 1997, financial disturbances spread elsewhere in East Asia. While the effects of the Asia crisis were felt mainly in the region, the Russian default in August 1998 was accompanied by even more widespread turbulence.[2] Bond spreads rose globally, and the access to foreign capital of emerging markets in all regions was severely curtailed.

1.3 DEBATE ABOUT WHAT WENT WRONG

Emerging market crises have spawned several controversies about their origin and spread as well as the appropriate policy response. Much of the current debate about the origin and spread of recent crises concerns whether they were caused by weak domestic economic fundamentals or by financial panic unrelated to economic conditions. While the two views are not mutually exclusive, their policy implications vary greatly. If a panic unrelated to fundamentals was the main impulse for the financial crises in emerging markets, reforms in macroeconomic or financial sector policy are not necessary in planning recovery. If, however, policy mistakes or other fundamentals were the most important contributors to the crises, reforms are indeed essential.

1.3.1 Theoretical Explanations of Crises

Several theoretical explanations of financial crises have been offered. One set of explanations of currency crises, termed first-generation models (e.g., Krugman, 1979), directs attention to inconsistencies between government policy commitments and domestic economic fundamentals. For example, excessive monetary expansion to monetize fiscal deficits can deplete the central bank's foreign exchange reserves and weaken its ability to defend a peg. An alternative set of explanations of currency crises, termed second-generation models (e.g., Obstfeld, 1994), relies on the idea that governments weigh the benefits against the costs of defending the exchange rate, which in certain circumstances may imply more than one equilibrium for the exchange rate.

In Obstfeld's model, a government can maintain a stable exchange rate as long as it perceives that the benefits of devaluing are smaller than

[2] The impact of the Asia crisis on Eurobond spreads was greatest in Asia, with spreads rising in 1997 to as high as 1000 basis points in Indonesia and Korea. After the Russian default in 1998, interest rate spreads in some Latin American and Asian countries rose above 1500 basis points – a level not witnessed since the period during the Mexican crisis of 1994–95.