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More Economic Letters

Financial Crises in Emerging Markets

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Department.

have balanced budgets and generally sound macroeconomic performance. Some observers argue that the generally favorable macroeconomic conditions indicate that the crises were not caused by incompatibility between fiscal and monetary policies and exchange rate pegs, but rather by the unexpected and self-fulfilling panics of foreign investors. Others, in contrast, attribute the crises to policy mistakes, such as excessive private spending, overvaluation of real exchange rates, and the buildup of bad loans and bank weaknesses.

This *Economic Letter* briefly reviews 11 papers that provide analytical perspectives and new empirical evidence on the causes of these crises as well as the appropriate policy responses. These papers, prepared for a conference sponsored by the Federal Reserve Bank of San Francisco's Center for Pacific Basin Monetary and Economic Studies, have been collected in *Financial Crises in Emerging Markets* (edited by R. Glick, R. Moreno, and M. Spiegel), published in 2001 by Cambridge University Press.

Determinants and propagation of financial crises

The coincidence of banking and currency problems associated with recent Asian financial crises has drawn renewed attention to the relationship between these two phenomena. Reuven Glick (FRBSF) and Michael Hutchison (U.C. Santa Cruz) examine the link between bank and currency crises in a broad set of industrial and developing countries between 1975 and 1997. They find that the "twin crises" phenomenon is primarily concentrated in emerging-market economies that are financially liberalized. Glick and Hutchison also find that the occurrence of banking crises provides a good leading indicator of currency crises in emerging markets. They conjecture that emerging

Paul Masson (International Monetary Fund) surveys various types of models that imply the possibility of multiple equilibria in financial markets, whereby jumps from a “good” equilibrium to a “bad” equilibrium can be triggered by changes in investor confidence that may be unrelated to economic fundamentals. These models, he argues, can explain some of the stylized facts associated with recent events in international financial markets, including the “excessive” volatility of financial market prices and the abrupt reversal of capital inflows in emerging markets. Masson concludes that when arbitrary shifts in market expectations unduly influence capital flows, countries may be justified in imposing greater regulation and control of capital flows as well as in slowing capital account liberalization

Kristin Forbes (Massachusetts Institute of Technology) analyzes the empirical magnitude of various channels through which shocks to one country can be transmitted abroad. She uses firm-level information to evaluate the impact of the East Asian and Russian crises on individual companies’ stock market returns in other countries. This is an innovative departure from other studies of contagion, which have relied on aggregate macroeconomic country-level data.

Forbes finds evidence that contagion may spread through a number of channels simultaneously. or example, she identifies three channels associated with the Russian crisis: falling demand for foreign firms selling in the crises countries (“income effect”), increased sales of high-liquidity corporate stocks in order to meet portfolio rebalancing needs of investors who suffered losses elsewhere (“liquidity effect”), and the tendency for investors to re-evaluate firms operating in the same region (“wake-up call effect”). All of these effects, as well as declining competitiveness for firms exporting similar pro competitiveness effect”), also were significant during the East Asian

Capital flows and reversals

The Asian financial crises have raised questions about the factors underlying the large surges in capital flows to emerging markets and the reasons for their abrupt reversals. Joshua Aizenman and Nancy Marion (Dartmouth) explore the abrupt decrease in the supply of credit to Asian countries by focusing on uncertainty about the magnitude of these nations' outstanding foreign debt obligations. They cite the dramatic buildup of foreign debt in Thailand and South Korea and note that at critical junctures both countries also announced significant upward revisions in the magnitude of their external debts.

They present one theoretical model in which increased uncertainty about the magnitude of outstanding debt reduces the probability of debt repayment, which in turn reduces the supply of credit to the debtor country. With another model, they discuss how increased uncertainty about investment prospects in Asia may have reduced the expected return on Asian assets, leading to an escalation of home bias by foreign investors and generating the observed collapse of foreign investment in the region.

Menzie Chinn and Kenneth Kletzer (U.C. Santa Cruz) highlight the central role of the banking sector and government bailout guarantees in recent capital flow reversals. They show that when accumulated foreign borrowing and other liabilities of the banking system exhaust the maximum available level of government bailout funds, banks are attacked by creditors, who remove their assets from the banking system. They cite empirical evidence in support of their model: the countries that were hit hardest by the Asian crisis also were the countries that had the greatest rise in foreign b

crisis, and loan quality deteriorated before the have long been in place in many emerging markets, Chinn and Kletzer consider what might have precipitated the occurrence of crises in the 1990s. They suggest that the culprit may be financial liberalization in the first half of the 1990s, which lessened restrictions on domestic financial institutions and opened access to foreign lenders, thus prompting capital to flow into emerging markets to take advantage of guaranteed ("insured") investment opportunities.

Michael Dooley (U.C. Santa Cruz) and Inseok Shin (Korea Development Institute) argue that financial liberalization in Korea initiated in the late 1980s was the fundamental factor behind the country's 1997-1998 crisis. In their view, Korean liberalization reduced the franchise value of the domestic banking system and exposed already very weak balance sheets to competitive pressures that promoted risk-seeking, including more short-term lending. In addition, Dooley and Shin contend that foreign creditors failed to monitor the individual creditworthiness of Korean banks. This failure is interpreted as evidence that foreign banks expected to be bailed out in the event of a crisis. Finally, Dooley and Shin argue that Korean regulatory authorities failed to manage the risky behavior of commercial banks adequately; in particular, authorities allowed the foreign branches of Korean banks to take on uncontrolled levels of foreign debt and to enhance the opportunities to exploit government insurance.

Institutional factors and financial structure

It is commonly believed that some forms of foreign investment are more desirable for recipient countries than others. In particular, foreign direct investments (FDI) are sometimes characterized as "cold" capital flows, which prove resilient during financial crises, while foreign portfolio investments are characterized as "hot" capital and flee at the first sign of difficulty. While the empirical foundation for also may be in order.

Assaf Razin, Efraim Sadka (both at Tel-Aviv University) and Chi-Wa Yuen (University of Hong Kong) explore why FDI is resilient during crises. In their model, the foreign operators of a multinational subsidiary have an inside-information advantage over potential domestic equity buyers; this advantage acts implicitly as a subsidy to FDI, thus leading to overinvestment.

There is a widespread perception that capital flows to emerging markets in the 1990s financed excessively risky projects and encouraged greater corporate exposure to fluctuations in interest rates and exchange rates. This perception has generated considerable interest in the factors that influence corporations' exposure to risk. Stijn Claessens, Simeon Djankov, (both of the World Bank) and Tatiana Nenova (Harvard) find that firms in countries with civil law (which prevails in countries in continental Europe and their ex-colonies) and weaker creditor rights display riskier financing patterns and lower profitability. They also find that firms operating in more bank-dominated financial systems also display riskier financing patterns and lower profitability. These results conform to expectations. Civil law systems tend to provide weaker protection of property rights than do common law systems (which prevail in Anglo-Saxon countries and their ex-colonies), lessening the ability of investors to limit risk-taking by corporations. Finally, banks tend to be dominant in markets with weaker property rights and poorly developed capital markets, implying riskier financing.

Policy responses to crises

currency does not stabilize. Further depreciation may generate capital losses to foreign investors, discouraging their return, and cause further bankruptcies in domestic firms with foreign currency exposure, thus increasing the extent of economic disruption. These considerations account for the standard policy prescription calling for a relatively firm monetary policy stance that raises interest rates in the aftermath of currency crises to stabilize the exchange rate. On the other hand, the costs of keeping domestic interest rates high after a currency collapse also may be very large. Raising or maintaining high interest rates under crisis conditions may so weaken the economy that it may destabilize the exchange rate, even causing it to depreciate further, by raising the risk premium or the probability of default on credit. As either view of the effects of interest rates on the exchange rate during crisis periods can be supported theoretically, the disagreement can be resolved only by empirical analysis. Two papers in the volume addressed this issue.

Robert Dekle, Cheng Hsiao, and Siyan Wang (University of Southern California) find that, in the short run, the rise in domestic interest rates in countries experiencing currency crises did appreciate the nominal exchange rate. However, their estimates imply that such an interest rate defense against speculative attacks requires extremely high interest rate levels. David Gould (Institute of International Finance) and Steven Kamin (Federal Reserve Board), however, find little evidence of any effect (appreciation or depreciation) of interest rate increases on the exchange rate, even after controlling for country risk premiums or default risk. While these findings differ qualitatively from each other, the policy implications of these two papers are actually quite similar: Policymakers need to exercise great caution in using an interest rate defense of the exchange rate during a crisis. Be

Capital controls provide an alternative policy response to capital flow reversals. Proponents argue that curbs on capital outflows, particularly during crises, could prevent the sudden withdrawal of capital, allowing policymakers to avoid the uncomfortable choice of raising domestic interest rates or allowing the currency to depreciate sharply, both of which can be very costly. The jury is still out on the value and effectiveness of such controls.

Hali Edison (Federal Reserve Board) and Carmen Reinhart (University of Maryland) attempt to shed further light on these questions by comparing the experiences of Malaysia and Thailand, both of which faced downward currency pressure from investors in offshore markets taking positions against the domestic currency as well as from capital flight in the onshore domestic market. Though each imposed controls on capital outflows, the authors found that Malaysia's controls were more effective than Thailand's for two reasons: First, Malaysia's controls were more restrictive than Thailand's, and second, Thailand imposed its controls as the crisis was unfolding in May 1997, while Malaysia imposed them much later, in September 1998, just before a regional recovery.

This collection of 11 papers provides a valuable contribution to ongoing research into understanding the causes and consequences of currency crises as well as the options available to policymakers.

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Glick, R., R. Moreno, and M. Spiegel, eds. 2001. *Financial Crises in Emerging Markets.* Cambridge University Press.

Inquiries about ordering the book should be directed to Cambridge University Press, 40 West 20th Street, New York, NY 10011-4211.