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International financial contagion in currency crises

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Abstract

This paper examines the role of financial linkages, especially through a common creditor, in the propagation of emerging market crises during the 1990s. Using panel probit regressions on 41 emerging market countries, it finds that financial linkages played a significant role in the spread of the Mexican, Asian, and Russian crises. The significance of financial linkages emerges after controlling for the role of domestic and external fundamentals, trade spillovers, and financial weaknesses in the affected countries. A strong financial linkage to the crisis country of origin not only substantially raises the probability of contagion, but also helps to explain the observed regional concentration of currency crises.

JEL classification: F31; F32; F34; F41; G15

Keywords: Currency crises; Emerging markets; Contagion; Trade and financial spillovers

1. Introduction

A prominent feature of the financial crises that have engulfed emerging market economies in recent years—the Mexican crisis of 1994–95, the Asian crisis of 1997, and the Russian crisis of 1998—was the spread of financial difficulties from one economy to others in the same region and beyond in a process that has come to be referred to as "contagion". Policymakers and researchers have increasingly wondered about the nature of these crises, the factors responsible for their spread, and, particularly, whether a country with seemingly appropriate domestic and external fundamentals can experience a crisis because of contagion.

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This paper extends earlier work on indicators of currency crises by looking at factors that render a country vulnerable to contagion and enhance the risk that a crisis in one country will spill over to others. It focuses on the role of financial linkages, through common bank lenders, as an important channel of transmission of exchange market pressures from one country to another during the major crisis episodes of the 1990s. When countries have a common creditor, a financial crisis in one country (country 1) can lead to financial market pressures in some other country (country 2) if, owing to the need to adjust its loan portfolio, the creditor curtails her lending or recalls some of her loans to country 2. The contagion effects stemming from the portfolio adjustment by the common creditor will be stronger the larger the share is of the common creditor's portfolio that is lent to country 2 and the larger the share is of country 2's external liabilities to the common creditor.

The results of panel probit regressions for 41 emerging market economies indicate that once domestic and external fundamentals as well as trade spillovers have been controlled for, financial linkages and weaknesses play a significant role in explaining the spread of crises.[1] Notably, a strong financial linkage to the first crisis country through a common creditor is the most important, significant, and robust variable: it not only substantially raises the probability of a crisis but also provides an economic rationale for the apparent regional concentration of these crises.

Section 2 briefly reviews the explanations of contemporaneous currency crises found in the literature, focusing on spillovers and contagion. Section 3 provides the empirical analysis, and Section 4 concludes.

2. Explanations of the transmission of crises across countries

A large body of the empirical literature on currency crises has focused on identifying economic and financial variables that, prior to a crisis, differ significantly between crisis and noncrisis countries and on providing, in some cases, an early indication of vulnerability to a currency or balance of payments crisis.[2] On the whole, the findings of this literature indicate that macroeconomic and financial fundamentals do help to explain the incidence and transmission of crises. Their explanatory power, especially as regards the spread of crises, however, has tended to be low (Berg and Pattillo, 1999). This has led researchers to broaden the scope

[1] Caramazza et al. (2000) examine in greater detail the roles of other factors, such as the exchange rate regime, capital controls, and nonlinearities. In particular, it finds that institutional factors, such as exchange rate regimes and capital controls, do not seem to matter after controlling for all other explanatory variables. It also examines the determinants of crises in industrial countries, which are found to follow a different pattern from that in emerging market economies.

[2] For example, Berg and Pattillo (1999); Goldfajn and Valdés (1998); Goldstein et al. (2000); IMF (1998); Kaminsky et al. (1998); Milesi-Ferretti and Razin (1998).