An Open Economy Model of the Credit Channel Applied to Four Asian Economies

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Summary

The observation by Paul Krugman that firms' balance sheets determine access to external finance and capital flows influence the domestic currency cost of foreign currency borrowing has been a key ingredient in recent models of the Asian crisis and its aftermath. The observation that Asian corporations before the crisis borrowed in US dollars while their assets were in domestic currency has given rise to a new generation of crisis models that emphasize the significance of foreign currency denominated funds on the liability side of the balance sheet.

In this paper we take this observation and use it to explain why some firms did better after the crisis than others. Our paper presents a simple theoretical model of an open economy with a credit channel driven by currency mismatch between assets and liabilities for firms and financial institutions. We make a distinction between domestically-oriented firms and exporters, suggesting that for domestic producers credit is more constrained because they have domestic currency collateral assets that deteriorate in value after a crisis and are dependent on banks that are themselves less likely to obtain funds to on-lend. Our model predicts that a crisis will lead to more firm failures among this group of smaller, less profitable firms with less exposure to international markets and finance. Exporters, on the other hand, have international sources of credit that are justified on collateralized export revenues that do not deteriorate after the crisis. For firms that are large enough and profitable enough, expanding export markets will provide both the financial resources and the market to support growth. We seek to explain these heterogeneous effects of the crisis on firms from four Asian economies most affected by the crisis – Thailand, Indonesia, Malaysia and Korea. Our results show that firms' access to bank finance and sales growth are affected by these considerations and critically longer maturity loans are more readily extended to larger and more profitable firms with greater access to export markets.