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Sovereign debt crises and credit to the private sector ☆

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Abstract

We use micro-level data to analyze emerging markets' private sector access to international debt markets during sovereign debt crises. We find that these crises are systematically accompanied by a decline in foreign credit to domestic private firms, both during debt renegotiations and for over two years after restructuring agreements are reached. This decline is large, statistically significant, and robust. We find that this effect is concentrated in the non-financial sector and is different for firms in the exporting and in the non-exporting sectors. We also find that the magnitude of the effect depends on the type of debt restructuring agreement.

Keywords: Sovereign debt; Debt crisis; Credit rationing; Credit constraints; International capital flows

JEL classifications: F34; F32; G32

1. Introduction

Emerging markets experienced a lending boom in the late 20th century. This boom was accompanied by a number of sovereign debt restructuring episodes, many of which were followed by economic crises. One channel through which economic activity can be affected by sovereign debt restructuring is the tightening of external financial constraints for private firms. This may be an important channel because the international capital market has become an important source of funds for the emerging markets' private sector. Throughout the lending boom, private sector borrowing accounted for over 30% of total net capital inflows to emerging markets. Currently, about 25% of emerging markets' corporate bonds and bank credit are external, and this number is much larger for Latin American emerging economies.[1]

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[1] See Chapter 4 of the Global Financial Stability Report, IMF, April 2005.

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To our knowledge, this paper presents the first systematic analysis of the effects of sovereign debt crises on foreign credit to the private sector. Recent empirical work has found various changes in private sector credit patterns in the aftermath of financial crises (Blalock et al., 2005; Desai et al., 2006; Eichengreen et al., 2001; Pasquariello, 2005) as well as changes in stock market behavior (Kallberg et al., 2002; Pasquariello, 2005). The empirical literature regarding the effects of sovereign debt crises has focused on the impact on sovereign borrowing. Eichengreen and Lindert (1989) find that sovereign default does not seem to influence future access of sovereigns to the capital market. This finding is confirmed in a recent study by Gelos et al. (2004) — they find that the probability of the sovereign's market access is not strongly influenced by the sovereign default. On the other side of the debate, Ozler (1993) claims that the countries can only reenter the credit market after settling old debts, and Tomz and Wright (2005) find that over the last 200 years "about half of all defaults led to exclusion from capital markets for a period of more than 12 years." We focus on the short- and medium-run effects of sovereign debt crises on private firms' access to foreign credit.[2]

Debt restructuring is a process that may involve a substantial period of time. Because it is possible that the response from both borrowing firms and foreign investors is different during debt renegotiations than it is after the final restructuring agreement, we construct data on the onset of debt renegotiations and consider separately the effects of the renegotiations and the effects of reaching the restructuring agreement. We also analyze the effects of different types of debt restructuring agreements.

Sovereign debt crisis can lead to reduced foreign credit to private domestic firms via a decline in supply, as lenders' perceptions of country risk worsen (Drudi and Giordano, 2000); via a decline in aggregate demand that is triggered by a sovereign debt crisis and its resolution (Dooley and Verma, 2003; Tomz and Wright, 2005); and via exogenous shocks that affect both the probability of sovereign debt crisis and the amount of foreign credit to the private sector. We provide an intuitive discussion of these channels. While our methodology does not allow us to distinguish between the demand and the supply effects, we address the possibility of a common shock.

Our micro-level data on foreign bond issuance and foreign syndicated bank loan contracts come from Bondware and Loanware and cover 30 emerging markets between 1984 and 2004.[3] We group privately owned firms into financial and non-financial sectors and split the latter into exporting and non-exporting sectors using information on the export structure of the country. For each sector, we calculate the total amount that firms borrowed in the bond market or from bank syndicates in each month. We also construct a number of indicators that describe various aspects of each country's economy as well as factors that affect the world supply of capital to emerging markets, which we use as control variables. In order to capture country risk premia properly, we exclude from the analysis all foreign-owned firms. We analyze these data using fixed effects panel regressions.

We find systematic evidence of a decline in foreign credit to the private sector in the aftermath of sovereign debt crises. The effects are statistically significant and economically important: After controlling for fundamentals, we find an additional decline in credit of over 20% below the country-specific average during the debt renegotiations, which persists more than two years after the restructuring agreement is reached. In our analysis of different types of debt restructuring agreements, we find that the contraction in foreign credit to the private sector is smaller after agreements with commercial creditors as opposed to agreements with official creditors and that no contraction occurs after voluntary debt swaps and debt buybacks. Furthermore, agreements that include new lending lead to a lower decline in credit than agreements that do not.

The distribution of this decline is uneven across firms: Credit to the exporting sector is not affected during the debt renegotiations but falls after the agreement is reached, while credit to the non-exporting sector falls during the renegotiations and then recovers within a year after the agreement is reached. Credit to the financial firms also contracts after the agreement is reached but by a small amount that is not statistically different from zero. These results are only suggestive since the difference in estimated coefficients across sectors are not statistically significant, potentially due to imperfect sorting of the firms into different sectors.

It is worth emphasizing that in focusing on foreign debt financing of emerging market private firms, we do not analyze capital flows that occur in the form of trade credit, foreign direct investment (FDI), or funds raised on the stock market.[4] We also exclude multinational and foreign-owned companies from our sample. Thus, our results are limited to foreign borrowing by private domestically owned firms.

[2] In our exercise, we do not estimate the probability of sovereign debt crises; instead, we take these events as given and analyze their ex post-effects.

[3] Hale (2007) shows that sovereign debt restructuring has a large impact on the instrument composition of private borrowers' external debt. Thus, we are combining bond and bank financing to account for possible substitution between these instruments.

[4] Auguste et al. (2006) show that after the most recent crisis in Argentina, firms successfully raised funds through ADRs. In a systematic analysis, Arslanalp and Henry (2005) find that when countries announce a debt relief agreement under the Brady Plan, their stock markets experience a sustained appreciation.