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Liquidity needs and vulnerability to financial underdevelopment ☆

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Abstract

This paper provides evidence that financial development has a large causal effect in the reduction of macroeconomic volatility resulting from the role of the financial system in liquidity provision. In particular, financial system development leads to a comparatively larger reduction in the volatility of output in sectors with high liquidity needs. Most of this decline results from the stabilization of the output of existing firms, although the volatility of the number of firms also drops significantly. Among different aspects of the financial system, the depth of financial intermediaries plays the main role in the reduction of volatility.

JEL classification: G2; O16; E32

Keywords: Financial development; Economic volatility; Liquidity needs

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1. Introduction

Does the development of a country's financial system affect its vulnerability to crises? Recent literature focusing on the impact of the East Asian crisis among countries and firms with different qualities of corporate governance suggests that weak financial institutions can significantly increase the effect of external shocks. Johnson et al. (2000) show that, among emerging markets, the extent of exchange rate depreciation and stock market decline during the period encompassing the Asian and Russian crises was larger in countries with poor corporate governance. Mitton (2002) shows that, in four countries affected by the Asian crisis, stock prices performed significantly better in firms with better corporate governance indicators. Similar evidence is provided in a recent paper by Baek et al. (2004) which reports that the concentration of ownership among foreign investors significantly reduced the impact of the Asian crisis among Korean firms. Moving beyond specific aspects of corporate governance, Easterly et al. (2000), Denizer et al. (2002), and Beck et al. (2001c) use aggregate data to explore the relation between financial development and output volatility and find that a more developed financial system is associated with decreased output volatility across countries.

This evidence is challenged by Acemoglu et al. (2003), however, who find that financial aspects do not matter for crises after controlling for institutions. According to this view, it is a country's institutional development that is simultaneously driving its vulnerability to shocks and its quality of corporate governance and financial development. Their result sheds some doubt on the true mechanism behind the cross-country studies cited above, and although it does not apply directly to the papers that exploit cross-firm variation, it casts doubt on the generality of their conclusions.

This paper provides new evidence that the development of the financial system has a causal effect on output volatility. The methodology involves data on 70 manufacturing industries in 48 countries during the period 1981–1998, and exploits the industry variation of the data to test the implications of a specific mechanism by which financial development can affect the extent of fluctuations, namely, the provision of liquidity to firms suffering working capital problems.

Many theoretical models imply that financial development reduces volatility because it helps firms facing temporary cash flow or net worth problems to obtain the necessary working capital to finance their operations (see, for example, Caballero and Krishnamurty, 2001). According to this mechanism, financial development should lead to a relatively larger reduction in the volatility of firms in industries that are more likely to require external funds to operate, that is, industries with high liquidity needs. This differential effect across industries provides the grounds on which to build an indirect test of causality. Evidence that financial development leads to a relatively greater reduction in the output volatility of industries with high liquidity needs provides indirect but strong support for a causal role of financial development in the reduction of output volatility through liquidity provision. Most important, the cross-country, cross-industry aspect of the data permits the generality of a cross-country analysis and the econometric advantages of cross-firms, country-based studies, therefore simultaneously complementing the evidence from both strands of the literature discussed above. The focus on a specific mechanism permits distinguishing among alternative explanations for the findings and determining whether the results are spuriously driven by a general impact of institutions on volatility that operates independently of financial development. Of course, this does not imply that the