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# Financial liberalization and banking crises in emerging economies☆

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**Abstract**

Financial liberalization often leads to financial crises. This link has usually been attributed to poorly designed banking systems, an explanation that is largely static. In this paper we develop a dynamic explanation, by modelling the evolution of a newly-liberalized bank's opportunities and incentives to take on risk over time. The model reveals that even if a banking system is well-designed, in the sense of having good long-run properties, many countries will enjoy an initial period of rapid, low-risk growth and then enter a period with an elevated risk of banking crisis. This transition emerges because of the way in which the degree of foreign competition, the marginal product of capital, and the bank's own net worth simultaneously evolve.


*Keywords:* Financial liberalization; Banking crisis; Financial crisis; Emerging markets

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## 1. Introduction

Many banking crises have been preceded by financial liberalization. This link was noted as early as 1985 in a paper by Diaz-Alejandro (1985). More recently, Kaminsky and Reinhart (1999)

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find that in 18 of the 26 banking crises they study, the financial sector had recently been liberalized. Caprio and Klingebiel (1996), Niimi (2000), and Gruben et al. (2003) conclude that banks are much more likely to fail in a liberalized regime than under financial repression. Financial liberalization has also been cited as a possible culprit in the Asian financial crisis by Corsetti et al. (1999) and Furman and Stiglitz (1998).

In explaining this link, the existing literature has focussed on the institutional structure of newly liberalized banking systems. For example, many analysts have stressed that implicit or explicit promises of government bailouts expose many newly liberalized banking systems to severe problems of moral hazard. When banks are under-capitalized, bailouts cut off the lower portion of their return distribution, encouraging them to assemble loan portfolios that are riskier than would be socially optimal.[1] Responding to these ideas, policy discussions have emphasized greater transparency, better bank supervision, and the costs and benefits of bailouts. Another important institutional concern has been the extent of competition. Hellman et al. (2000) argue that increased competition erodes a bank's franchise value, reducing its incentive to avoid risk.

It is indeed likely that newly liberalized banking systems will have major institutional flaws. This explanation, however, is static in nature. It applies to all liberalized banking sectors, whether recently liberalized or not; competition and moral hazard explain the American Savings and Loan crisis as well as the banking crises in East Asia.

We believe that the crises that follow liberalization involve more than poor design. Building on this belief, we develop a dynamic, small-open-economy, general-equilibrium model of the transition period following financial liberalization. The model illustrates how financial liberalization affects the evolution of a bank's franchise value, its net worth, its returns to risk-taking, and the aggregate capital stock. We show that the period shortly—but not immediately—after liberalization can be especially risky, a result consistent with the stylized fact, emphasized by Gayton and Ranciere (2003), that "middle income" economies are most vulnerable to banking crises.[2] This occurs even if the banking system is well-designed, in the sense that banks are relatively safe in the economy's long-run equilibrium. Moreover, we show that banks can be riskier in the transition period even if competition is fiercer in the long-run. Our results in no way imply that poor design of banking systems does not contribute to banking crises, for surely it does. Our results do imply, however, that financial liberalization, in and of itself, contributes as well.[3]

The starting point for our analysis is the immediate aftermath of financial repression. We assume that an economy emerging from financial repression is characterized by a small capital stock—this, presumably, is why it liberalizes—and limited bank net worth. Because foreign finance is most expensive in a small market, and because a small capital stock has a high marginal product, the bank can charge high interest rates on its loans. The same high returns to capital that make lending desirable also imply that the bank faces little default risk. Banks thus lend up to their

[1] The seminal paper on this topic is Stiglitz and Weiss (1981). Recent applications to banking crises include Dekle and Kletzer (2001) and Tornell et al. (2004). Allen and Gale (2000) argue that limited liability increases the prices investors will pay for risky assets, leading to asset price bubbles and financial crises. Dooley (1987) claims that deposit insurance makes depositors less willing to monitor banks that can "appropriate" their deposits.

[2] To explain this stylized fact, Gayton and Ranciere (2003) develop a closed-economy model where banks face risk from sunspot-triggered bank runs. Aghion et al. (2004) use the interaction between net worth, investment and the price of a fixed domestic factor to show that countries at "an intermediate level of financial development" are most vulnerable.

[3] Our model is also complementary to the enormous literature exploring the links between banking crises and currency crises. If currency crises are a risk facing banks (e.g., Cook, 2004), our model explains why newly-liberalized banks willingly expose themselves to such risks. Conversely, if weak banking sectors trigger currency crises (e.g., Burnside et al., 2001), our model provides an explanation of why newly-liberalized banks might become weak.