Financial Liberalization and Financial Fragility

by

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March 1998

SUMMARY

In the last three decades several developed and developing countries have moved towards liberalization of their financial system. Countries eased or lifted bank interest rate ceilings, lowered compulsory reserve requirements and entry barriers, reduced government interference in credit allocation decisions, and privatized many banks and insurance companies. Also, some countries actively promoted the development of local stock markets, and encouraged entry of foreign financial intermediaries.

Generally, the trend towards financial liberalization is part of a broader trend towards reduced direct intervention of the state in the economy. In a number of developing countries, however, financial liberalization is also a deliberate attempt to move away from "financial repression" as a policy to fund government fiscal imbalances and subsidize priority sectors, a move strongly advocated by the influential work of McKinnon (1973) and Shaw (1973). According to McKinnon and Shaw, financial repression, by forcing financial institutions to pay low and often negative real interest rates, reduces private financial savings, thereby decreasing the resources available to finance capital accumulation. From this perspective, through financial liberalization developing countries can stimulate domestic savings and growth, and reduce excessive dependence on foreign capital flows.

The work of McKinnon and Shaw also stimulated a fast-growing strand of research that analyzes how financial development can stimulate economic growth by accelerating productivity growth rather than through saving mobilization (see Levine, 1997, for a survey). This research includes a number of empirical studies on the relationship between financial development and growth; most studies find various measures of financial development to be positively correlated with both contemporaneous and future growth rates of GDP, suggesting that financial liberalization, by fostering financial development, can increase the long-run growth rate of the economy (King and Levine, 1993).

This positive view of financial liberalization, however, is somewhat clouded by the marked increase in financial fragility experienced by both developed and developing countries in the 1980s and 1990s. Particularly, banking sectors around the world were hit by a remarkable number of problems, some of which erupted in full-fledged systemic crises as documented in the extensive studies of Caprio and Kliengebiel (1995) and Lindgren, Garcia, and Saal (1996). In a number of cases, for example in Chile in 1981, banking sector problems emerged shortly after the financial sector was deregulated. These experiences suggest that the benefits of financial liberalization may have to be weighed against the cost of increased financial fragility, and some

prominent voices in the policy debate have taken the view that some degree of financial regulation is preferable to premature liberalization in developing countries (Caprio and Summers, 1993, Stiglitz, 1994).

While the link between financial development and economic growth has been documented through careful empirical studies, the connection between financial liberalization and financial fragility has not been the object of systematic econometric investigation so far. This paper is an attempt to fill this gap. Building upon our previous research on the determinants of banking crises (Demirgüç-Kunt and Detragiache, 1997), we construct a financial liberalization dummy variable for a large number of developed and developing countries during 1980-95. To date liberalization we choose an observable policy change, namely the deregulation of bank interest rates, since case studies indicate that this is often the centerpiece of the overall liberalization process. The data set encompasses countries that liberalized financial markets well before the 1980s as well as countries that liberalized at different dates during the sample period. Using a multivariate logit framework, we test whether banking crises are more likely to occur in liberalized financial systems when other factors that may increase the probability of a crisis are controlled for. The set of control variables includes macroeconomic variables, characteristics of the banking sector, and institutional variables. We also test whether crises are more likely to occur during the transition to a less controlled financial system, or if fragility is a permanent feature of liberalization.

Another issue often raised in the debate over financial liberalization is whether the dangers of liberalization are greater in countries where the institutions needed to support the efficient functioning of financial markets are not well developed. Such institutions include effective prudential regulation and supervision of financial intermediaries and of organized security exchanges, and a well-functioning mechanism to enforce contracts and regulations. We investigate this issue by testing whether the relationship between banking crises and liberalization is stronger in countries with weaker institutional environments, as proxied by GDP per capita and various indexes of institutional quality. Finally, we subject our results to a variety of robustness checks.

The general result is that banking crises are indeed more likely to occur in countries with a liberalized financial sector, even when other factors (including the real interest rate) are controlled for; furthermore, increased banking sector fragility is not a characteristic of the immediate aftermath of liberalization; rather, it tends to surface a few years after the liberalization process begins. The data also support the conjecture that a weak institutional environment makes liberalization more likely to lead to a banking crisis; specifically, in countries were the rule of law is weak, corruption is widespread, the bureaucracy is inefficient, and contract enforcement mechanisms are ineffective financial liberalization tends to have a particularly large impact on the probability of a banking crisis. Thus, there is clear evidence that financial liberalization has costs in terms of increased financial fragility especially in developing countries, where the institutions needed to support a well-functioning financial system are generally not well-established.

To explore a possible channel through which liberalization may affect bank fragility, we use bank level data to examine the correlation between variables proxing bank franchise values and the financial liberalization dummy variable. We find evidence that franchise values tend to be lower when financial markets are liberalized, possibly because bank monopolistic power is

eroded. This suggests that theories attributing increased moral hazard to low bank franchise value may help explain why financial liberalization tends to make banking crises more likely (Caprio and Summers, 1993, and Hellman, Murdock and Stiglitz, 1994).

These findings raise the question of whether the many benefits of financial liberalization highlighted in the literature may not be offset by the costs in terms of greater vulnerability to banking crises. A rigorous answer to this complex question is beyond the scope of this paper. Nonetheless, using our data set we attempt to throw some light on one particular aspect of the issue, namely the effect of financial liberalization and banking crises on financial development and growth. First, we show that financial development is positively correlated with output growth in our sample, confirming the results of King and Levine (1993). Second, we find that, conditional on no banking crisis, countries/time periods in which financial markets are liberalized have higher financial development that countries/time periods in which markets are controlled. However, countries/time periods with both financial liberalization and a banking crisis have approximately the same level of financial development as countries/time periods with neither, so that the net effect on growth through financial development is not significantly different from zero.

To explore this issue further, we split the sample between countries that were financially repressed at the time of liberalization and countries that were financially restrained, where the state of financial repression (restraint) is identified by the presence of negative (positive) interest rates in the period before liberalization. The same tests described above are then performed for the two subsamples. For the restrained group, the results resemble those for the whole sample. In contrast, for the repressed group financial liberalization is accompanied by higher financial development even if a banking crisis also takes place. These findings suggest that financial liberalization is likely to have a positive effect on growth through financial development in countries characterized by financial repression, even if it increases financial fragility.

Table 1: Interest Rate Liberalization and Banking Crisis Dates

COUNTRY	PERIODS OF INTEREST RATE LIBERALIZATION DURING 1980-95	BANKING CRISIS DATE
Austria	1980-95	
Australia	1981-95	
Belgium	1986-95	
Canada	1980-95	
Switzerland	1989-95	
Chile	1980-95	1981-87
Colombia	1980-95	1982-85
Denmark	1981-95	
Ecuador	1986-87, 1992-95	
Egypt	1991-95	
Finland	1986-95	1991-94
France	1980-95	
Germany	1980-95	
Greece	1980-95	
Guatemala	1989-95	
Guyana	1991-95	1993-95
Honduras	1990-95	
Indonesia	1983-95	1992-94
India	1991-95	1991-94
Ireland	1985-95	
Israel	1990-95	1983-84
Italy	1980-95	1990-94
Jamaica	1991-95	
Jordan	1988-95	1989-90
Japan	1985-95	1992-94
Kenya	1991-95	1993
Korea	1984-88, 1991-95	
Sri Lanka	1980-95	1989-93
Mexico	1989-95	1982, 1994-95
Malaysia	1980-95	1985-88
Mali	1987-89	
Nigeria	1990-93	1991-95
Netherlands	1980-95	
Norway	1985-1995	1987-93
New Zealand	1980, 1984-95	
Papua New Guinea	1980-95	1989-95
Peru	1980-84, 1990-95	1983-90
Philippines	1981-95	1981-87
Portugal	1984-95	1986-89
Paraguay	1990-95	1995
El Salvador	1991-95	1989
Tanzania	1993-95	1988-95
Sweden	1980-95	1990-93
Togo	1993-95	
Thailand	1989-95	1983-87
Turkey*	1980-82, 1984-95	1991, 1994-95
Uganda*	1991-95	
Uruguay	1980-95	1981-85
US	1980-95	1980-92
Venezuela	1989-95	1993-95
Zaire*	1980-95	
Zambia*	1992-95	

* This country had additional banking crises during 1980-95, but these crises are not included in the panel because of missing data.

Table 2. Impact of Interest Liberalization on Crisis Probability

Country†	Bank Crisis Start Date	Probability of Crisis Predicted by Baseline at Crisis Date‡	Predicted Probability of Crisis had the Country not Liberalized on or prior to the Bank Crisis Date
Chile	1981	.174	.035
Colombia	1982	.047	.008
Finland	1991	.119	.023
Guyana	1993	.028	.005
India	1991	.221	.047
Indonesia	1992	.306	.071
Italy	1990	.028	.005
Japan	1992	.071	.012
Jordan	1989	.786	.387
Kenya	1993	.412	.108
Malaysia	1985	.170	.034
Mexico	1994	.207	.043
Nigeria	1991	.044	.008
Norway	1987	.031	.006
Papua N.Guinea	1989	.259	.057
Paraguay	1995	.114	.022
Peru	1983	.347	.084
Philippines	1981	.052	.009
Portugal	1986	.133	.026
Sri Lanka	1989	.104	.019
Sweden	1990	.033	.006
Turkey	1991	.221	.047
	1994	.443	.121
Uruguay	1981	.358	.087
United States	1980	.459	.126
Venezuela	1993	.424	.113

† Probabilities for Mali, Mexico 1982, El Salvador, Israel,Tanzania, and Thailand are not reported since these countries had not liberalized prior to the banking crisis.

‡ Countries in the baseline specification are classified as crisis cases if the predicted probability is greater than .05, which is equal to the ratio of number of crisis observations to total number of observations.