



## Book review

*Niels Hermes and Robert Lensink, eds., Financial Development and Economic Growth: Theory and Experiences from Developing Countries (Routledge, London, 1996), pp. xii + 363, \$85.00.*

In this volume, N. Hermes and R. Lensink assemble a set of papers from a workshop held at the University of Groningen in December of 1994 that express the varied and evolving views about the special role that financial institutions and markets can play in the growth of developing economies. While these views are firmly rooted in the McKinnon–Shaw paradigm of the early 1970s, their evolution has benefited markedly from the recent experiences, both successful and unsuccessful, of several developing countries in implementing plans for financial liberalization and reform. In particular, some papers suggest that open markets, competition for bank deposits and freely-floating interest rates may not be necessary elements of initial reform programs in economies characterized by severe market imperfections, and that second-best solutions may be necessary to pave the way for later strides. Other papers argue that initial conditions can influence the real sector outcomes of financial reforms, and that policy actions should be matched to these conditions.

J.C. Berthélemy and A. Varoudakis review in Chapter 1 the functions of a financial system in promoting growth (i.e., mobilization of savings, portfolio diversification, improvements in allocative efficiencies) and in so doing offer a useful assessment of the degree to which well-known theoretical findings can be applied to developing economies. The key unresolved research issue addressed here is the need to evaluate the nature of non-linearities in the finance-growth nexus, since models that recognize the possibility for multiple equilibria can explain poverty traps and may identify the types of financial thresholds that must be overcome in the transition to a desirable steady state growth path. The authors also remind us that the standard debt contract may not be the optimal financing arrangement in economies with imperfect goods markets, and that the simultaneous development of equity markets and more traditional intermediaries may enhance the volume and quality of information available to potential investors.

In Chapter 2, G. Saint-Paul considers the role of demand factors in the

endogenous emergence of financial institutions. The simple yet instructive model is motivated by the cases of England in the 17th century and France and Germany in the 18th century, in which financial institutions arose from the funding needs of governments and remained in place even as the importance of their public-sector functions lessened. This externality may explain how countries with productive possibilities of similar quality find themselves on opposite sides of a financial threshold. Specifically, the model presents conditions under which learning in the financial sector raises its relative real wage and attracts workers from the production sector, which reduces investment initially but later promotes it. Finally, Saint-Paul suggests that the findings could be applied to modern Eastern European countries.

B. Amable and J.B. Chatelain next present a credit rationing model in which agents that are unable to take adequate personal stakes in their potential projects choose to place borrowed funds in a safe asset rather than 'soft' capital that increases productivity only in the event of a favorable shock. These borrowers then claim that their low repayments are a result of negative shocks. Lenders observe the wealth of individual credit applicants but only the aggregate distribution of shocks, and thus ration credit according to wealth. The rationing ensures appropriate use of funds under the critical assumption that agents apply a fixed percentage of their wealth to hard investment. The main result is that more efficient soft capital (or a lowering of the costs required to obtain the 'good' outcome) allows lenders to make more and larger loans, which presumably funds less-wealthy entrepreneurs with innovative, high-quality projects.

The paper does not emphasize adequately, however, the importance of the model's assumptions. What would be the impact of larger loans if borrowers could use funds unrestrictedly, or if banks observed wealth imperfectly, or if borrowers could misrepresent good outcomes as well as bad ones? Could relaxation of the assumption of an infinitely elastic supply of deposits at the world interest rate lead to smaller loans and greater problems of project indivisibility? A discussion of these possibilities would have provided the reader with more complete information for interpreting the results.

Berthélemy and Varoudakis formally model the notion of multiple equilibria based on initial financial conditions in Chapter 4, and follow up with a cross-country analysis in the spirit of King and Levine ('Finance and Growth: Schumpeter Might Be Right', *Quarterly Journal of Economics*, 1993) that assigns countries to clusters based on initial secondary school enrollment rates and financial sector size. The regressions suggest the presence of financial thresholds, particularly in countries with low levels of secondary enrollment. In particular, financial development affects growth positively in countries with larger initial financial sectors and negatively in countries with financial sectors that are initially less well-developed. The findings are then shown to be consistent with the experiences over the past four decades of Taiwan and Senegal, which represent relatively polar cases of initial educational and financial development.

In Chapter 5, V. Murinde uses annual data for the Pacific Basin countries over the 1960–1993 period to examine the role of interest rates in money, bond and stock markets on the growth of real output. The study first runs separate time series regressions for each country of real income growth on contemporaneous and/or single lags of market returns and the ratio of investment to output, and finds in most cases that income is positively correlated with stock returns and negatively correlated with bond returns. Murinde then pools the annual data and estimates a seemingly-unrelated regression with results that are consistent with the time-series findings. Finally, regressions similar to those of Atje and Jovanovic ('Stock Markets and Development', *European Economic Review*, 1993) confirm the positive association between stock prices and growth. Murinde interprets these results as evidence that strong stock market performance raises income growth.

While the empirical work is carefully done and I am sympathetic to Murinde's view, the causal interpretation leaves me a bit uneasy. In particular, the inclusion of contemporaneous regressors in the separate time series regressions assumes a rapid and perhaps unrealistic response of income to financial market conditions, while the exclusion of a lagged dependent variable may partially account for what appear to be autocorrelated errors. Moreover, the results are also consistent with reverse causation from real sector performance to investment and prices. As such, it might be useful to confirm the findings with a more dynamic approach such as that afforded by a VAR framework (see, for example, P.L. Rousseau and P. Wachtel 'Financial Intermediation and Economic Performance: Historical Evidence From Five Industrialized Countries', *Journal of Money, Credit and Banking* 1998, forthcoming).

The application of M. Odedokun in Chapter 6 examines relationships between financial depth and the incremental output–capital ratio (IOCR), which is a common proxy for economic efficiency defined as the ratio of changes in output to investment spending, using pooled annual data for about eighty countries from 1961–1989. The financial measures include ratios of both the levels and changes in quantities such as liquid liabilities, narrow money and private sector credit to output. The study finds positive correlations between changes in the financial quantities and the IOCR, which may reflect a positive impact of credit flows on the efficiency of investment. Odedokun also finds, however, that the positive correlations between levels of the financial measures and output growth found by King and Levine (1993) do not hold for the IOCR, and are in fact negative.

While the first result is potentially important since it suggests that the key impact of financial development on growth arises from an improved ability to mobilize deposit flows, the empirical specifications themselves may shed light on possible sources of the negative correlation between the levels measures and the IOCR. Specifically, if the levels of the financial quantities are autocorrelated and upward trending while the IOCRs are essentially trendless, the omission of time effects from the specifications may explain why generally upward movements in the financial measures do not have a similar impact on the IOCR. Moreover,

countries with higher incomes often have more sophisticated financial systems and an IOCR that is converging to a steady state, while countries with less developed financial systems may be able to apply newly mobilized resources to previously unstartable yet highly productive projects. Since the regressions do not control for income, the financial depth measures are left to proxy for it as well as financial sophistication. These shortcomings, however, do not seriously weaken the insight that credit and monetary flows are better targets for policy in developing countries than financial stocks.

In Chapter 7, M. Fry finds that repressionist financial policies are negatively related to savings, investment and the growth rates of output and exports in a panel of sixteen developing countries from 1970–1988. In so doing, Fry identifies characteristics of the Pacific Basin countries that may partially explain their largely successful experiences over the 1982–1992 period. Highly positive or negative real deposit rates of interest and large black market currency premia serve as the measures of repression. While the direction of these effects is not particularly surprising, the magnitudes in the iterative three-stage least squares estimations that exploit error covariances and impose coefficient restrictions across equations suggest that repression as codified here can seriously hamper growth. As such, the study makes a convincing argument that the stability of the financial system is crucial for its ability to stimulate economic activity.

In Chapter 8, R. Levine presents a framework for policy analysis in developing economies that recognizes from the outset that free and competitive markets can lead to the underprovision of financial services and increase the risks of market failures caused by contagion, inadequate monitoring of intermediaries, ineffective evaluation and monitoring of borrowers, imperfect competition and missing markets. Although the need to avoid these failures can sometimes justify government intervention in financial markets, Levine stresses the importance of evaluating actions designed to avoid one market failure in light of their potential for increasing the risk of another. He then applies the framework to the issues of deposit insurance and the scope of permissible banking activities. The paper's focus on policy coordination and the positive role of some government interventions suggests that while cross-country analyses have revealed financial characteristics that are robustly correlated with growth, policy recommendations must ultimately be based on careful analyses of conditions in individual countries.

In the spirit of Levine's piece, K. Gupta and R. Lensink build a simulation model in Chapter 9 that takes into account the possibly complex sectoral interactions induced by a rise in the interest rate on deposits and evaluates their impact on an array of choice variables including private sector holdings of bank deposits, government bonds and physical capital. The main result suggests that a one-time increase in the deposit rate may lower private investment for several periods before it recovers to surpass its initial level. The result hinges upon the substitutability of assets in savers' portfolios, since private sector capital appears to rise immediately when bank deposits and physical capital are independent.

While the authors are candid about the limitations of their work, more could be said about the practical difficulties involved in employing the technique to an actual country rather than a 'representative' Asian economy. In particular, since the stability assumptions of standard impulse response analysis may render estimation of the model parameters with any precision extremely difficult for many developing countries, policymakers may often need to use educated guesses to which the results might be quite sensitive. For example, while the response of private sector investment to wealth is difficult to measure, a change from 0.2 to 0.15 in the authors' baseline model leads to initial declines in private sector investment from which the economy does not recover for over twenty years! This underscores the importance of developing practical calibration methods in the presence of structural change and unreliable data, since it is for countries with these characteristics that the simulation approach could be most useful.

T. Hellman, K. Murdock and J. Stiglitz present the elements of 'financial restraint' in Chapter 10 with two models in which temporary government interventions provide incentives for innovative banks to penetrate new markets and mobilize deposits. In the first model, the government grants a temporary monopoly and subsidy to a bank that enters a new catchment, thereby providing incentives for the entrant to gather information about the new market since potential competitors are unable to free-ride immediately. The second model includes a binding ceiling on deposit rates that encourages banks to engage in non-price competition for deposits. The resulting advertising campaigns introduce new individuals and their previously non-monetized resources to the formal banking system. In both cases, the interventions are instrumental in overcoming financial thresholds and preparing the way for *laissez-faire* financial policies. These very tractable models formalize much of the evolving thought on financial reform, and reflect the strong promise of the financial restraint framework.

In Chapter 11, A. Demirgüç-Kunt and R. Levine take a case approach to examining links between financial conditions and the success of public enterprise (PE) reform programs for nine developing countries over time periods that span 1980–1993. They find that corporatization is an effective strategy for countries with less developed financial systems, while privatization is an additional option for countries with financial systems that are well-developed from the outset. Within countries with favorable initial conditions, small PE reforms may be possible without accompanying financial reforms, but large scale PE reforms could still benefit from them. Overall, the case approach provides additional support for the possibility of multiple outcomes based on initial financial conditions.

The case studies of financial liberalization experiences that comprise the final three chapters also support the matching of policy with initial conditions. In Chapter 12, H. Visser and I. van Herpt compare Chile's liberalization from 1973–82 with that of Indonesia in the 1980s. In particular, the advantages of Indonesia's gradualist approach to freeing interest rates and promoting bank competition while maintaining financial stability are contrasted with the negative

effects of Chile's rapid dismantling of protectionist trade policies, elimination of credit distortions and use of the exchange rate to control inflation. The paper presents a wealth of factual information to motivate plausible cause-effect relationships that point to the efficacy of Indonesia's approach, yet it remains unclear whether Chile's financial problems were based on ill-fated reforms or rather on adverse macroeconomic shocks such as the fall in copper prices in the 1970s and the proliferation of non-performing dollar-denominated debts as the fixed exchange rate was abandoned in 1982. Moreover, Indonesia's relatively lower dependence on the dollar and positive oil shocks may have been factors in their apparent ability to liberalize successfully. Nevertheless, this careful analysis contributes to the growing body of case evidence that stability in the banking system is a precondition for successful financial liberalization.

In Chapter 13, N. Hermes focuses on the reform experiences of Chile in the wake of the 1981–83 financial crises and offers evidence that reforms may have reduced informational asymmetries between borrowers and lenders. With a strategy similar to that of Fazzari, Hubbard and Petersen ('Financing Constraints and Corporate Investment', *Brookings Papers on Economic Activity*, 1988), Hermes shows that cash flow variables (proxying for financing constraints) are positively correlated with investment in a cross section of firms segmented by size and age over the 1982–1992 period. Although we are not shown whether the scale of the investment variable varies across the subgroups, it also appears that financing constraints have a greater impact on subsamples of small and young firms than on large and old ones. Moreover, the finding that small firms became less cash constrained after the financial reforms of 1986 provides indirect evidence for an amelioration of informational asymmetries. In contrast, there is no evidence that investment became more efficient after 1986. In fact, it does not appear that differences in either borrowing costs or returns between small and large firms have fallen substantially over time. Of course, differing rates of return on investment between subgroups can reflect changes in competition within groups as well as the differential impact of business cycles, and thus are only suggestive of sustained inefficiencies.

The final chapter is a descriptive account of the challenges involved in improving financial services in the Caribbean Community (CARICOM). G. Abbott argues that the segmentation of capital markets in the CARICOM has impeded effective resource mobilization, while intra-CARICOM trade restrictions have kept production low and effected a shift towards tourism, which is an industry highly vulnerable to economic risk. Abbott then suggests that attempts at financial integration may speed the course of development in the Caribbean. Of course, such attempts have been unsuccessful before in these small economies, and the paper does not indicate that conditions are so significantly different now that a fresh offensive could produce the types of scale economies that appear to be necessary to ensure a favorable outcome.

Overall, the papers in the volume are of generally high quality, although the

theoretical and policy-oriented contributions are for the most part stronger than the empirical ones. By bringing together views that modify traditional thinking on the role of finance in development, the editors have presented a cohesive framework with which to consider policy choices, and as such the volume should be useful to both researchers and practitioners.

Peter L. Rousseau  
Department of Economics  
Vanderbilt University  
Nashville, TN 37235, USA