

## Working Paper Number 153

### **Finance and Growth in Developing Countries: sound principles and unreliable evidence**

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*Financial development and economic growth are clearly related, yet the institutional channels and even the direction of causality remain unresolved theoretical issues. None the less, and despite the persistence of a wide range of organizational forms in advanced economies, strong causality from particular forms of organization of financial institutions towards rapid economic growth has become a central axiom of orthodox development economics, recently strengthened by the empirical findings of ‘new institutional’ economists. This chapter argues that this canonical literature is deeply flawed both methodologically and empirically. Further, the observed consequences of financial liberalisation for savings and investment on the one hand, and for macroeconomic stability on the other, suggest that an alternative interpretation of the relationship between finance and growth in developing countries is more plausible: leading to quite different policy prescriptions.*

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## Introduction

Financial development and economic growth are clearly closely related, and this relationship has occupied the minds of seminal economists from Smith to Schumpeter, although the channels and even the direction of causality have remained unresolved in both theory and empirics. Long-term sustainable economic growth depends on the ability to raise the rates of accumulation of physical and human capital, to use the resulting productive assets more efficiently, and to ensure the access of the whole population to these assets. Financial intermediation supports this investment process by mobilizing household and foreign savings for investment by firms; ensuring that these funds are allocated to the most productive use; and spreading risk and providing liquidity so that firms can operate the new capacity efficiently.

Unsurprisingly, this ‘structural’ approach to finance, rooted in the classical and Keynesian tradition, is that of Ajit Singh’s critical work on the role of stock markets in developing countries, a logical extension of his better known work on developed country markets (Singh 1998). Dominant economic reform strategies are designed for developing countries without due consideration of their financial systems, or indeed of those of the developed countries (which are the explicit benchmark) either. Alternative financial development strategies are probably superior, but do not enjoy the benefit of orthodoxy (Singh, 2003).

Financial development involves the establishment and expansion of institutions, instruments and markets that support this investment and growth process. Historically, the role of banks and non-bank financial intermediaries ranging from pension funds to stock markets, has been to translate household savings into enterprise investment, monitor investments and allocate funds, and to price and spread risk. Financial intermediation thus has strong externalities in this context, which are generally positive (such as information and liquidity provision), but can also be negative – particularly the systemic financial crises which are endemic to market systems as Ajit has recently pointed out so clearly (2007). Moreover, the wide range of organizational forms involved precluded any clear conclusion as to what kind of financial institutions might maximize economic growth.

None the less, as this paper shows, recent attempts by the ‘new institutional economists’ to identify ‘advanced’ (i.e. US) financial structures as a key source of economic progress seem to have created a new epistemic paradigm, strengthened by apparent support from empirical cross-country studies of the relationship between indicators of financial development and observed rates of growth. The core argument is neatly summarized by Table 1, from which two key conclusions are commonly drawn. First, that greater financial *depth* (that is, higher ratios of total financial assets to national income or output) is related to higher levels of productivity and thus income per capita. Second, that higher incomes are also associated with a more advanced financial *structure*, that is: the move from banks towards non-bank financial intermediaries, and from both of these towards stock markets. The causality is assumed to run from financial development to economic growth: so that financial sector reforms, which lead to greater depth and improved structure are held to stimulate faster growth.

Table 1. Financial Development by Income Group, 1990s  
(asset capitalization as percent of GDP)

	Banks	NBFIs	Stock markets	Total
High income countries	81	41	33	155
Upper middle income countries	40	21	11	72
Lower middle income countries	34	12	12	58
Low income countries	23	5	4	32

Source: World Bank (2001)

The dismantling of the traditional development finance model (based on bank-based systems, directed credit, public development banks, closed capital accounts, capped interest rates, and active monetary intervention) that had been established in developing countries in the post-War decades has become a core element of the economic reform and structural adjustment process led by the international financial institutions. The new standard model of financial architecture is held to reflect the imperatives of ‘financial development’ as revealed by the success of financial liberalization in the advanced economies which moved away from national bank-based systems towards open capital markets. These reforms are expected to raise savings and investment levels, increase the rate of growth and reduce macroeconomic instability. However, it is far from clear that these objectives have been achieved. Most obviously, the series of financial crises that have erupted since the mid-1990s calls into question the appropriateness of financial liberalisation and opening for fragile economies at early stages of industrialisation; but also the decline of funding for large firms in productive sectors, and SMEs in general, is a major problem and is probably even more significant for sustainable growth and poverty reduction in the long run (Singh, 2001).

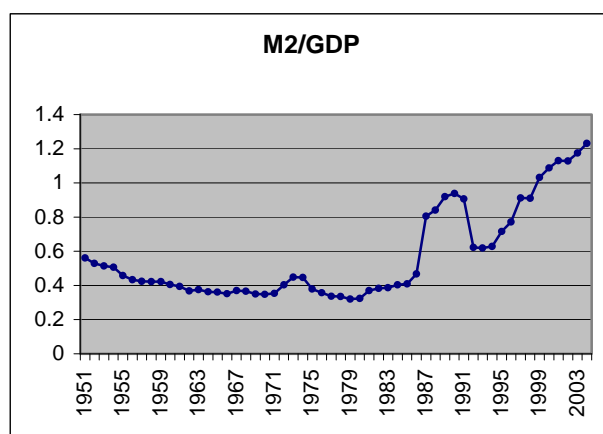
This chapter has the following structure. The next section examines the relationship between financial development and economic growth, which underpins the ‘new standard model’ of financial reform in developing countries. The growing empirical evidence suggests that this relationship is not so close or as unidirectional as is usually supposed, and does not provide a sound evidential basis for the prescriptions of the new standard model. I then turn to two central issues in more detail: the effect of financial reform on savings and corporate funding on the one hand; and the consequences for macroeconomic stability and investment on the other. The final section concludes with the implications of the analysis presented in this chapter for both policy design in developing countries and our understanding of how economic ideas are spread and embedded.

### Theory *versus* Evidence on Financial Development and Economic Growth

The extremely influential study by King and Levine (1993a), and subsequent work by Levine and Zervos (1998), Levine (2000), and Levine, Loayza and Beck (2000), have all appeared to provide sound empirical evidence in support of the new standard model.<sup>2</sup> Levine (2000) further shows that the impact of financial development on growth acts mainly through total factor productivity rather than through capital accumulation or savings rates. Beck, Demirguc-Kunt and Levine (2004) even claim to show that financial development reduces income inequality and absolute poverty levels. A universal elixir.

In their canonical paper, King & Levine (1993a) regress growth in 1960-89 for seventy-seven OECD and developing countries as a cross-section on *previous* financial depth ( $M_2/Y$  in 1960) in order to avoid endogeneity of the contemporary  $M_2/Y$  variable. However, the statistical significance of their financial depth variable is almost entirely eliminated by highly significant regional dummies.<sup>3</sup> Moreover, when contemporary correlation between financial depth and growth is accounted for the predictive power of the model fails completely (Arestis & Panicos, 1997). This is not just a technical econometric issue. In fact, the widely used  $M_2/Y$  is not a really reliable indicator of financial depth at all. It varies enormously over time as well as across countries, and responds to changing monetary policy stances and asset bubbles. Figure 1 applies the King & Levine (1993a) measure of financial depth to the UK over the long run. While the increase in the measure during the 1980s does clearly reflect the major financial liberalization and modernization of that decade, did the UK really become *less* financially developed between 1950 and 1980, or during the early 1990s?

Figure 1. King & Levine measure of financial depth, long run UK



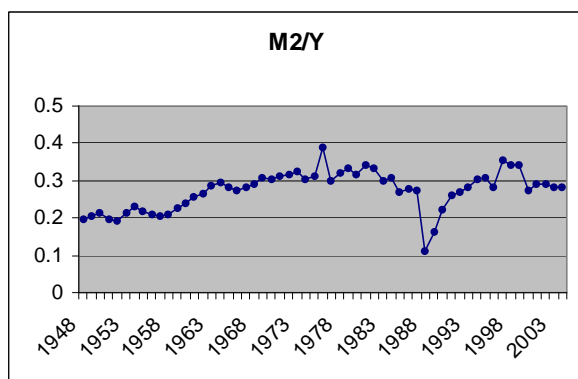
Source: IMF, International Financial Statistics (various years).

<sup>2</sup> Levine, Loayza and Beck (2000) also correct some methodological problems in Levine and Zervos (1998). The latter analysis does not account for potential simultaneity bias nor does it control explicitly for country fixed effects. Levine, Loayza and Beck (2000) use the Laporta and others (1998) measures of legal origin as instrumental variables to demonstrate causality.

<sup>3</sup> This point on regional differences in financial structure is taken up again below.

This problem is brought out even more starkly by the case of Mexico, where the  $M_2/Y$  measure in fact shows relatively little variance over the long run despite major changes in Mexico’s financial system; while the short-run shifts are clearly related to shifts in monetary stance related to fiscal or external shocks. As in the case of the UK, therefore, cross-section studies including Mexico are liable to be misleading as the specific choice of base year will clearly affect the results substantially. Indeed, if we take this measure literally, Mexico had the same financial depth (a key measure of financial development as we have seen) as the UK in the mid-seventies!

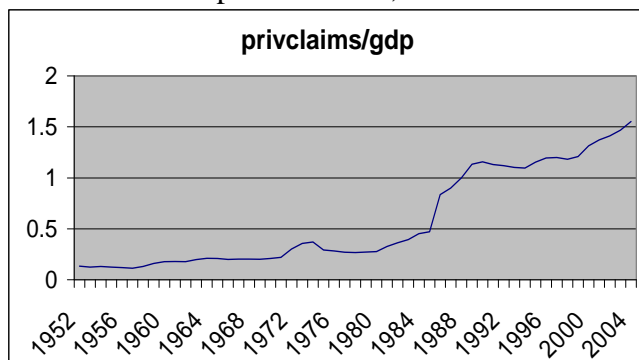
Figure 2. King & Levine measure of financial depth, long run Mexico



Source: IMF, *International Financial Statistics*. (various years)

A broader measure of financial assets than the  $M_2$  used in these cross-section studies should yield more reassuring results. Figure 3 shows the evolution of *total* financial claims on the private sector (as a proportion of GDP) for the UK over the past fifty years. The trend is certainly more stable, and the major step-change in the 1980s is more evident, yet there are also shorter-term movements which clearly reflect asset bubbles and shifting monetary policy stances.

Figure 3. Claims on the private sector, UK

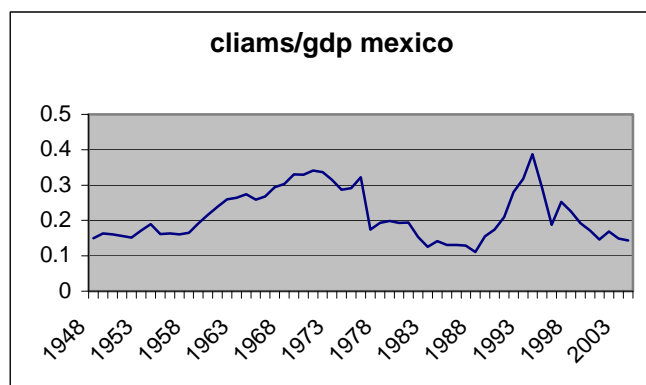


Source: IMF, *International Financial Statistics* (various years)

However, in the case of Mexico, this broader measure still exhibits considerable instability over the long run as Figure 4 shows. The increase of the early 1990s has been claimed as evidence of the positive effects of financial liberalization; but by the same

taken the second half of that decade reflects the collapse of the asset bubble and thus the decade as a whole corresponds to a cycle of external capital flows, not financial development at all. Taking the whole five decades, by this measure there has been no financial deepening at all!

Figure 4: Claims on the private sector, Mexico

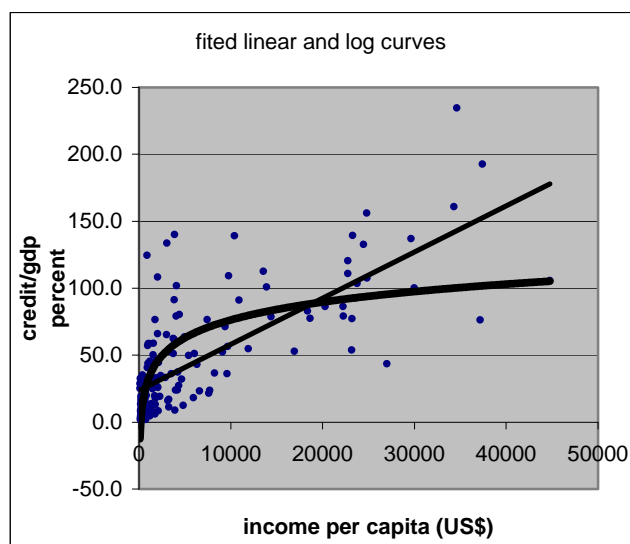


Source: IMF *International Financial Statistics* (various years)

It is important to note that the different indicators of financial development that have a significant impact on growth reflect different characteristics of financial development. Bank credit to the private sector (as a proportion of GDP) ratio shown in Figure 4 is a better measure of the level of financial intermediation than the  $M_2/Y$  measure discussed above, but still has significant shortcomings that are revealed by time series but obscured by cross-section studies. Further, King & Zervos (1998) and the other cognate studies mentioned above do not find any explanatory power in the ratio of stock market capitalization to GDP or in the size of stock markets relative to that of banks. Moreover, firm-level evidence shows that there are complementarities between banks and markets in developing countries (Demirgüç-Kunt & Maksimovic, 1996). An indicator of financial development that unfortunately has not been used in cross-country studies, probably because of lack of data availability in easily available multicountry databases (though readily available from central banks) is the duration of bank loans and fixed income securities, which would best correspond to the provision of investment finance.

Part of the problem may be that these studies pool developed and developing countries: although the impact of financial development will differ depending on the stage of economic development of a country. The level of financial intermediation may be most important for economic growth at initial stages of development, while for richer countries, its efficiency and composition may be more relevant. The original study by King & Levine (1993a) and later ones by Andrés, Hernando & López-Salido (1999) and Leahy & others (2001), are consistent with this view: they were unable to find significant links between bank credit to GDP ratios and subsequent economic growth rates in OECD countries; even though they do find a statistically significant relationship for developing countries. The reason for this result is evident from Figure 5: not only is there an enormous dispersion around the fitted linear trend, but also the logged relationship shows much less variation above a per capita income level of \$10,000.

Figure 5. Private Credit/GDP and GDP per capita, 2000



Source: World Bank, *World Development Indicators* (2005).

When we turn to the *structure* of finance, large differences are evident in Table 2. Both within the OECD and between developing regions in the level of financial market capitalization clearly differs widely, but these differences are not clearly related to economic development or efficiency.

Table 2: Financial Depth Worldwide, 2003

	Shares of GDP							
	Stk Mkt		Debt Sec			Bank ass		Tot Cap
			Pub	Priv	Tot			
World		0.86	0.56	0.88	1.44	1.12	3.42	
EMU*		0.60	0.67	0.97	1.64	1.60	3.84	
US		1.30	0.46	1.46	1.91	0.52	3.73	
Japan		1.14	1.43	0.53	1.96	1.45	4.54	
UK		1.37	0.29	1.05	1.34	2.22	4.93	
* of which								
Germany		0.45	0.48	1.20	1.68	1.20	3.33	
France		0.71	0.60	0.88	1.47	1.99	4.17	
Spain		0.86	0.53	0.74	1.27	1.09	3.22	
Portugal		0.42	0.72	0.81	1.53	1.18	3.14	
Greece		0.60	1.29	0.12	1.41	1.02	3.03	
EMs		0.47	0.23	0.15	0.37	0.78	1.63	
LA		0.76	0.21	0.24	0.45	1.12	2.33	
Asia		0.35	0.37	0.12	0.49	0.45	1.29	
ME		0.12	0.01	0.02	0.03	0.85	1.00	
Africa		0.30	0.13	0.05	0.18	0.60	1.08	
Europe		0.09	0.27	0.03	0.30	0.27	0.67	

Source: IMF *Financial Stability Report* (2005)

In fact, corporate investment finance patterns differ due to evolution of ownership and regulation: they cannot be seen as a steady ‘progression’ towards a single US/UK model (Mayer, 1990). Banks remain the key element in the system, especially when we take into account the fact that they own most of the non-bank financial intermediaries. Pension and insurance funds emerge as major players in securitization very late in economic development. Further, a specific financial function can be carried out by different institutional forms any one country or region, which means that relative weight of statistical categories may vary widely while the real difference in terms of financial provision is small. A good example of this diversity is the institutional form of housing finance (mortgage provision): in the US this is provided by securitization under government guarantee; in the UK by building society and bank loans; in Germany by insurance companies; in Spain by savings and loans associations (*cajas de ahorro*); and in Mexico by construction companies.

In consequence, financial structures are in fact very different across the world, as Table 3 demonstrates. It is not possible to claim that there is a unique relationship between a particular financial structure and either levels of income per capita. Indeed even though this table shows that banks remain central to the financial intermediation process in all countries other than the US – it obscures the fact that even in the US most of the non-bank financial intermediaries form part of bank holding groups.

Table 3. Financial structure worldwide

As shares of total assets								
			Stk Mkt	Debt Sec			Bank ass	Tot Cap M
				Pub	Priv	Tot		
World			0.25	0.16	0.26	0.42	0.33	1.00
EMU*			0.16	0.17	0.25	0.43	0.42	1.00
US			0.35	0.12	0.39	0.51	0.14	1.00
Japan			0.25	0.31	0.12	0.43	0.32	1.00
UK			0.28	0.06	0.21	0.27	0.45	1.00
* of which								
Germany			0.13	0.15	0.36	0.50	0.36	1.00
France			0.17	0.14	0.21	0.35	0.48	1.00
Spain			0.27	0.16	0.23	0.39	0.34	1.00
Portugal			0.13	0.23	0.26	0.49	0.38	1.00
Greece			0.20	0.43	0.04	0.47	0.34	1.00
EMs			0.29	0.14	0.09	0.23	0.48	1.00
LA			0.33	0.09	0.10	0.19	0.48	1.00
Asia			0.27	0.28	0.10	0.38	0.35	1.00
ME			0.12	0.01	0.02	0.03	0.85	1.00
Africa			0.28	0.12	0.04	0.16	0.56	1.00
Europe			0.14	0.40	0.04	0.45	0.41	1.00

Source: IMF *Financial Stability Report* (2005)



### **Financial Liberalization, Savings and Corporate Funding**

The proponents of financial liberalization as leading to financial development in developing countries have emphasized two main channels through which private investment is expected to rise. The first channel is through an increase in the availability of credit that would follow the removal of interest rate ceiling due to increased private saving; and the second is through the enhanced screening of investment projects due to the higher cost of capital, thereby increasing the marginal productivity of investment (McKinnon, 1973). Second, ending financial repression would improve bank efficiency by ensuring positive real interest rates, eliminating excessive reserve requirements and removing mandated credit allocations (McKinnon, 1989). Extensions of the basic hypothesis focussed on investment levels (Kapur, 1976; Mathieson, 1980) and quality (Galbis, 1977; Fry, 1988) as lending shifts from informal 'curb' markets into the banking system.

Early critics of this model such as van Wijnbergen (1983) or Taylor (1983) are sceptical that increased financial intermediation will result from liberalization, because curb markets that are not subject to the reserve requirement that apply to banks. Hence, if substitution takes place between bank time deposits and curb markets, the total supply of funds available to the business sector will decline. Moreover, if banks then lend to the public sector (e.g. by investing in Treasury bills), the diversion of funds away from the curb market will result in a net decline in the availability of private sector credit. Due to limited access of the small and medium firms to bank credit, a shift of fund from curb market to the banking system reduces the availability of credit for these types of firms unless liberalization of banking system reduces bias against small borrower.

Moreover, in most developing countries where both market and non-market imperfections exist within broader liberalized macroeconomic framework, there is host of factors other than the volume and cost of credit that influence firms' investment decisions. For instance, evidence from four African countries (Uganda, Kenya, Malawi and Lesotho) does not support the hypothesis that increase in financial depth increases the volume of savings or access to credit of the commercial banks in rural areas, except for those who already have collateral (Mosley, 1999). Conventional financial institutions are biased against small borrowers due to the high unit costs of loan administration and lack of effective collateral, which translate into low returns and high risk. This is a major problem for all developing countries as small firms account for the bulk of production and the great majority of employment. This 'gap' has traditionally been addressed by public sector development banks and extension schemes; but these have generally been dismantled as part of financial reforms, and not effectively replaced by micro-credit schemes, which are systemically limited in their coverage and scope.

There is a general agreement that financial liberalization has led to greater allocative efficiency if this is defined as the commercial profitability of banks, but the predicted boost in saving as predicted by McKinnon and Shaw has not been observed (Williamson & Mahar, 1998). Studies by the World Bank (1989), Fry (1997), Ghani (1992) and King and Levine (1993b) did reveal positive and significant cross-section relationships between economic growth and real interest rate. However, Fry (1997)

observed an inverted U shaped relation between national savings and real interest rates in his study on 16 developing countries: national savings decline at both very high and low real interest rates through the effects of these rates on output growth.<sup>4</sup> For Argentina no strong relationship between real interest rate and quantity of investment was reported although an increase in financial deepening was observed (Fanelli, Rozenwurcel and Simpson, 1998). Nevertheless, a positive effect on investment efficiency for Uruguay is reported by Noya, Casacuberta and Lorenzo (1998).

Again, the Mexican experience shows little evidence that movement in real interest rates significantly affected economic performance. While financial saving is positively correlated with real interest rates, total domestic saving appears to be unrelated to the rate of interest, which may imply some substitution of domestic non-financial assets into domestic financial savings (Warman & Thirlwall, 1994). The net effect of interest rates on Mexican investment is thus negative. Gunçavdi, Bleaney and McKay (1998) observed structural change in the aggregate investment equation after financial liberalization in Turkey: as expected, the credit variable became much less important although cost of capital did not become significant.

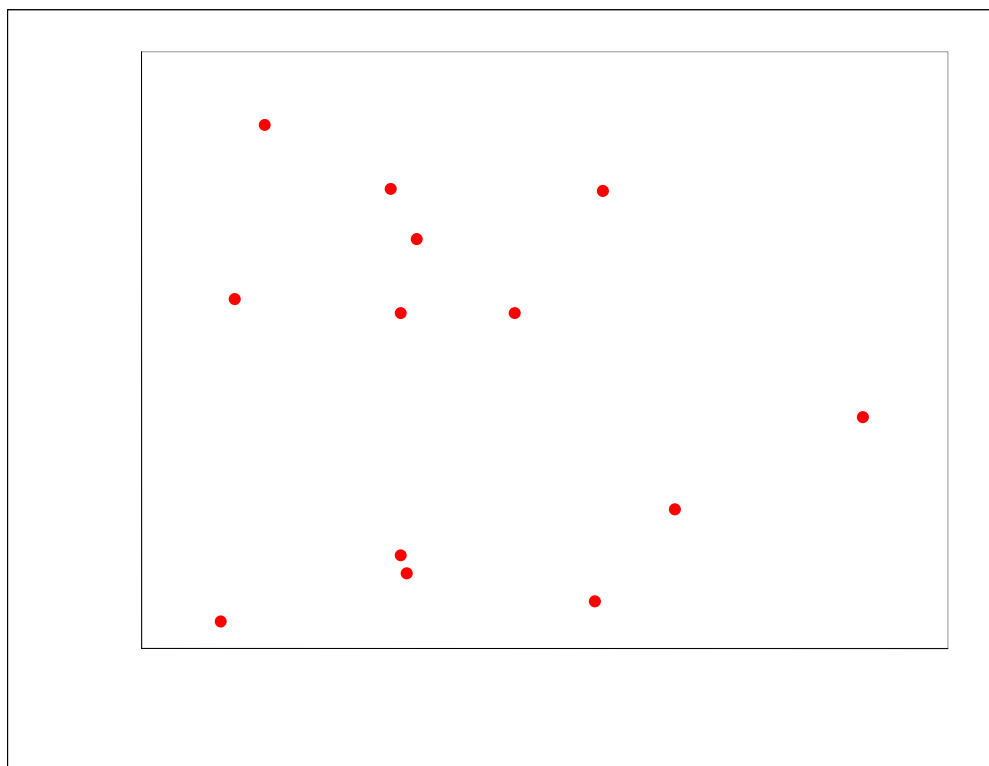
In sum, there is little evidence that financial liberalization has in fact resulted in higher savings rates, which was supposed to be the main contribution to higher investment and thus growth, even though it has resulted in increased bank profitability. There are two reasons for this outcome. First, financial reform has the effect of shifting savings out of assets such as precious metals, property or currency into bank deposits and marketable securities. This will raise the recorded financial 'depth' without raising savings rates. Second, financial liberalization expands access to consumer credit in the form of factoring systems, credit cards and personal loans. These in turn *reduce* aggregate household saving because this is simply the difference between the increase in household financial assets and the increase in household financial liabilities. In many emerging markets, this net wealth effect has been compounded by simultaneous trade liberalization and real exchange rate liberalization which cheapened imported luxury goods (Calderon & FitzGerald, 1997).

In consequence, as Figure 6 illustrates, there is no robust evidence that financial deepening (measured by the widest possible measure – total market capitalization) is related to higher rates of saving and thus investment or growth for the developed countries. There is some link for developing countries but as we have seen, the causality is more likely to run the other way: from high savings rates to high capitalisation. In fact, savings rates themselves appear to depend on other factors such as demographic and tax influences on pension provision, funding of health and education, and the ownership structure of corporations or even family organization.

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<sup>4</sup> Indeed, even at the theoretical level, the net effect of interest rates on saving is ambiguous because the wealth effect and the relative price effect have negative and positive effects respectively. See FitzGerald (2006).

Figure 6. Financial market capitalization and savings rates (shares of GDP), 2003



Source: IMF *Financial Stability Report* (2005).

Note: 'Financial market capitalization' refers to the sum of stock market capitalization, outstanding debt securities and bank assets as a share of GDP. The 'savings rate' refers to gross national savings as a percentage of GDP.

Of course, the effect of financial development and liberalization on investment might still be positive even though it does not raise savings, through the quality of investment improving due to the monitoring and discipline exercised by financial markets, even if absolute investment levels do not rise. Rajan & Zingales (1998) thus attempt to establish whether industrial sectors that are relatively more in need of external finance<sup>5</sup> develop disproportionately faster in countries with more-developed financial markets. They use the ratio of credit to (claims on) the private sector to GDP as the financial depth indicator; but add an indicator of compliance with international accounting standards to reflect the quality of that finance. They get significant results from a panel of 55 countries over 1980-1990, indicating that financial development does have a positive effect on growth through the corporate finance channel. However, there are serious shortcomings in this method: first, the unreliability of the financial depth indicator, as we have noted above; and second, the degree of financial dependence used

<sup>5</sup> The financial dependence of each industrial sector is assumed to be the same as that for the US in all countries. This assumption begs the central question to be investigated and undoubtedly undermines the reliability of the results.

for all countries is that for the US in the corresponding industrial sector<sup>6</sup>; and third, the index of compliance with international accounting standards used to instrument for 'quality of financial institutions' appears to be meaningless.<sup>7</sup>

The solution to this puzzle may be to look at corporate finance in more detail in order to establish the link between financial development and firms' investment. However, as is well known, corporate investment even in advanced economies is largely self-financed out of retained profits. The analysis of net sources of finance for physical investment in Germany, Japan, the UK and the US reveal not only the predominance of retained profits to be higher in the UK and the US despite their more developed financial markets, but the key role of banks in all cases among external sources (Corbett & Jenkinson, 1997). Only in the case of the US are bonds a significant source of corporate investment finance, and even here it should be recalled that a considerable share of these bonds are held by banks. We should not be surprised, therefore, to find that financial liberalization has little observable effect on aggregate investment levels or economic growth.

Table 5. Net sources of finance, 1970-1994 (% of physical investment)

	Germany	Japan	UK	US
Internal	78.9	69.9	93.3	96.1
Bank finance	11.9	26.7	14.6	11.1
Bonds	-1.0	4.0	4.2	15.4
New equity	0.1	3.5	-4.6	-7.6
Trade credit	-1.2	-5.0	-0.9	-2.4
Capital transfers	8.7	--	1.7	--
Other	1.4	1.0	0.0	-4.4
Statistical adjustment	1.2	0.0	-8.4	-8.3

Source: Corbett & Jenkinson, 1997.

None the less great expectations were raised by of stock markets as a new source of corporate finance in developing countries in the early 1990s. In retrospect it is clear that this boom was closely associated with capital inflows, producing an apparent correlation with economic growth (e.g. Levine & Zervos 1998). These markets have since shrunk dramatically, and turn out to have low liquidity (i.e. turnover) with volatile and pro-cyclical returns. Further, after the initial flotation of state enterprises, new issues have declined markedly because large domestic firms can access global capital markets and the costs are too high for SMEs.

<sup>6</sup> That is, they assume that the value of the external financing ratio for a specific industrial branch in the US can be applied automatically to the same branch in (say) India. No justification is given for this major assumption, which largely begs the question that the article sets out to answer.

<sup>7</sup> Specifically, Rajan & Zingales (1998) give the following index values for accounting standards (implicitly set for US = 100) among others: Austria (54), Mexico (60), Germany (62), Netherlands (64), Philippines (65), New Zealand (70), Malaysia (76), UK (78). It is difficult to understand how research of this calibre is acceptable to leading journals and their referees.

**Financial Liberalization, Investment and Instability**

The success of resource allocation efficiency depends, to a great extent, on minimizing emerging capital market imperfections such as moral hazard and adverse selection (Watson, 1993). Stiglitz & Weiss (1981) showed that an equilibrium loan market rate is characterized by credit rationing; and Mankiw (1986) that there may not exist any equilibrium at all (i.e. a 'collapsed market' with no lending). Asymmetric informational problems prevent banks from adequately measuring the risk associated with their lending: to compensate for this risk banks push their lending rates up leading to deterioration of the creditworthiness of borrowers. Banks thus penalise safe borrowers with a high cost of capital, while new firms with no past credit record (and/or little collateral) find funding difficult to obtain at any price. Capital markets, with high entry costs and information requirements, are even more exclusive – unless a financial intermediary can bundle securities such as credit card debt or mortgages effectively by using the homogeneity of clients to provide useful default risk indicators.

Financial market failure in the provision of longterm credit to large sections of the private sector in developing countries thus constrains the level of investment to that fundable by cash flow and trade credit; resulting in a sub-optimal level of investment with consequences for economic growth. Further, the higher cost of capital induces the borrower to choose riskier projects, with higher probability of default. Hence, the market equilibrium, if any, will be fragile. Small changes in the exogenous risk free interest rate or a monetary contraction can have a large impact on the efficiency of the market allocation of credit. In such a situation, government intervention (in the form of a tax subsidy or a loan guarantee) can improve the situation even if the government has no informational advantage over lenders characterized by unobservable heterogeneity, as long as return exceeds opportunity cost. Market failure in a liberalized financial regime may thus call for *selective* public intervention.

Macroeconomic instability increases the variance in project returns and also adverse selection possibility by the banks, thus making banks risk averse. The real benefit of macroeconomic stability thus comes not from increased financial savings and greater availability of credit, but from the favourable impact on risk-sharing relationship between borrowers and lenders (Villanueva & Mirakhor, 1990). The pace of liberalization itself is thus crucial in the sense that sudden increase in lending rate resulting from freeing of interest rate may render some firms unprofitable as they need to pay a higher price for their funds borrowed earlier at a lower rate. This will in turn result in non-repayment of loans. Mathieson (1980) warned that as this leads to widespread bankruptcies in the banking system, a programme of gradual interest rate decontrol is necessary rather than sudden decontrol. Moreover, such decontrol should not be attempted until a sufficient degree of fiscal and macroeconomic stability has been achieved – financial liberalization has not been effective as a means of achieving stability in itself.

Theoretically, there are potential gains from deregulation of financial institutions in the form of increasing growth and social welfare. But much of these depend on proper sequencing and if poorly sequenced, deregulation can be counterproductive. The

literature on sequencing of financial liberalization seeks to determine the optimal order for liberalizing the domestic real sector, the domestic financial sector, the external real sector and the external financial sector. It is generally agreed that domestic financial liberalization should come after domestic real and before external financial sector liberalization. However, it is not at all clear whether domestic financial liberalization should come before or after external liberalization, e.g. trade liberalization (Gibson & Tsakalotos, 1994). Institutional factors such as the legal infrastructure, bankruptcy code, accounting norms, disclosure rules and prudential regulations, are all important for fostering the operation of financial markets and capturing any ensuing efficiency gains, and are central elements in successful financial liberalization (Aivazian, 1998).

Finally, Sikorski (1996) points out that financial liberalization theory was predicated on an unashamed faith in the markets and the widespread belief that ‘government failure’ was best combated by removing the government. But this belief conflicts with what actually happens in any real economy where social institutions play a crucial role in gathering information and reducing uncertainty (Gibson & Tsakalotos, 1994). Thus, deliberate institutional design is essential in order to develop the long-term, high trust relations between market participants that determine how well a country can compete in international markets and hence in the long run its economic performance. For instance, since information collected through monitoring the financial institutions regarding their solvency and management practices by individuals is costly and becomes a public good, it would be sub-optimal in welfare terms for depositors to monitor them individually (Fry, 1997). As financial institutions know that depositors do not adequately monitor them, they have incentives to take greater risks. However, as long as central bank plays its due role of supervision and monitoring and makes the information public this cost should be minimized.

Nevertheless, non-existence of markets does not necessarily imply that public intervention would result in superior outcome. Public intervention as substitute for market failure can suffer from exactly the same problems of unobservable outcomes (e.g. contractual default), unobservable behaviour (e.g. moral hazard) or unobservable characteristics (e.g. adverse selection) as the private sector (Obstfeld & Rogoff, 1996). There can exist other markets dealing with the problem (e.g. higher equity participation to tackle uncertainty problems, specialized institutions/banks for industrial credit, leasing companies). So the pertinent question is why those contingent-markets are absent and, in the case of smaller developing countries, whether these services can be provided by the international capital market.

The greatest problem for developing countries in this context is probably the absence of a domestic market for long-term domestic market for treasury or corporate bonds. This means that it is difficult to fund public infrastructure investment and major private modernization projects on the one hand. On the other hand, it becomes impossible for firms to hedge against exchange rate changes, further destabilizing foreign currency markets; and monetary intervention in order to counteract external shocks becomes very difficult. Financial liberalization has not led to this important outcome, for at least two reasons. First, fiscal reform has been geared to reducing budget deficits, and to avoiding

monetization (i.e. inflation targeting) by issuance of short-term T-bills, rather than developing a long bond market. Second, the absence of institutional market makers in these securities persists if no special facilities (such as rediscount facilities or tax incentives) are extended to pension and insurance funds to encourage demand for these assets.

With the deregulation of interest rates, banks gamble for higher profit by lending to the booming sector, such as real estate. This leads to asset price boom that “can exacerbate the adverse incentive on banks to take risk, increased interest rates, increased macroeconomic instability and, if bank’s portfolios are concentrated on particular sectors, increased covariance in the returns to banks’ borrowers” (Brownbridge & Kirkpatrick, 1999). The booms and slumps in the asset prices – where banks play a crucial role by credit expansion during upswing in the business cycle and thus raising value of collateral, stimulating more borrowing, leading to over indebtedness and making borrowers vulnerable to any macroeconomic changes (e.g. interest rate increases) and ultimately rendering them insolvent – frequently result in banking crises. Moreover, personnel in the banking sector in the developing countries often lack the skill required for evaluating risky investment projects and monitoring the borrowers. Indeed the liberalized environment itself causes a moral hazard problem and induces the banks to take on risks.

Financial liberalization is usually associated with integration to global capital market. In principle, this should make an international pool of liquidity available to the domestic financial system, which should then be more stable. However, in practice, the high degree of volatility of international capital inflows combined with the narrow and thin nature of host markets subjects the recipient countries to shocks and crisis, which can be both large and frequent. The quantity effect of the flows is exacerbated by the fact that arbitrage leads to the domestic interest rate being set by the world interest rate, plus expected devaluation plus the perceived default risk premium. This uncovered interest rate parity principle leads to very high real rates of interest in emerging markets and asymmetric responses in terms of investment and output due to the impact on firms’ balance sheets; the volatility of expected profits resulting from this has a strong depressive effect on private investment (FitzGerald 2001). The orthodox policy response to these crises can further worsen the situation as firms are forced into bankruptcy by credit restrictions and large devaluations with asymmetric effects on balance sheets.

Domestic investment financed by foreign savings leads to a temporary increase in real income and perceived wealth and relaxation of lending standard by banks as current trends are expected to continue (Reisen, 1999). With the increase in both consumption and investment balance of payment deteriorates which remains unnoticed at initial stage. Overvaluation of the exchange rate can sustain this sense of optimism – and thus exacerbate the asset bubble. Hence, for most of the developing countries the question of exchange rate policy is also crucial to the success of financial liberalization. Indeed, from the point of view of firms faced by irreversible investment decisions, macroeconomic stability and credit availability are more important than low interest rates or tax incentives (Pindyck & Solimano, 1993).

In sum, the *process*, rather than the *objectives* of financial liberalization in developing countries has emerged as the central problem. The original ‘big bang’ approach is clearly dangerous; but Clarke (1996) suggests that even the concept of an ‘equilibrium’ interest rate may be undefined or at least unobtainable through the process of competition since the rate required to balance financial markets differs from that required to equilibrate savings and investment. Specifically, Stiglitz & others (2006) argue that a delay in capital market liberalization, despite a degree of continued financial repression, can be beneficial in developing countries. Further, an *increase* in repression (or control) in some areas of financial markets may be essential in order to ensure that the whole process does not go out of hand during the transitional period (Fanelli & Medhora, 1998).

### **Conclusions: Policy Lessons and Epistemic Implications**

The main conclusions of this chapter are four. *First*, that financial depth ratios fluctuate widely over time for individual countries, while financial structures differ considerably between industrialised economies: so neither are a reliable guide to desirable financial development in industrialising countries. *Second*, that despite the assurances in the canonical literature there is no simple relationship between financial development in terms of both depth (increased asset/income ratio) and structure (increased non-bank asset share) and economic growth, particularly in developing countries. *Third*, that financial liberalisation cannot be demonstrated to raise overall savings or investment rates, or to increase corporate efficiency; although it does ensure bank solvency, albeit at the expense of small firms and long-term investment lending. And *fourth*, that too rapid a pace of financial reform and opening to global capital markets can create considerable instability despite efficiency gains, leading to a net reduction of investment and growth.

Two further questions logically arise from these conclusions. What are their implications for the design future financial reform strategies in developing countries? And why does the orthodox model persist in the face of the evidence? I can do no more than sketch a response to these two questions here.

On the policy issues, a useful initial step would be to reappraise the role of commercial banks in developing countries, the traditional intermediaries between saving households and investing firms. Their move into asset management and consumer credit, and away from the financing of productive investment in general and SMEs in particular, has been encouraged by regulators concerned for bank liquidity. Similarly, the closure of public sector development banks was justified by their heavy losses and vulnerability to political pressure, but the financing gap for long-term investment in key sectors such as exports and infrastructure remains. Public intervention is still needed to correct this market failure – although this could take the form of risk insurance, rediscount facilities, support for debt securitization and market making, rather than traditional development banking. By extension, the relaxation of regulatory restrictions should avoid asset booms and systemic risk, rather than aim for banking efficiency alone.



Further, monetary policy should encompass exchange rates and be geared towards providing a credible and stable environment for firms rather than simply inflation targeting: specifically by providing a low real interest rate and a competitive real exchange rate, supported by appropriate tax incentives for long term productive investment. The development of a long term bond market should be a priority, as this would not only provide long-term capital for growth at reasonable real cost but also stabilize exchange rate expectations and enable the monetary authorities to intervene effectively to damp macroeconomic cycles caused by external shocks – as has been the case in OECD countries until recently.

On the epistemic issue of the persistence of a flawed paradigm of financial development in the face of the evidence, there are two obvious yet unsatisfactory answers. On the one hand, some would say that the previous model had simply failed, so that financial liberalisation was the only option available. In consequence the existence of a coherent analytical and empirical justification is irrelevant, or at best a post hoc rationalisation.

On the other hand, others would say that financial liberalisation simply reflects the interests of international banks, who form alliances with relevant fractions of domestic finance capital and determine the policies of international financial institutions. The orthodox model is then little more than propaganda, however sophisticated, or at best a case of interested parties taking advantage of misguided theorists.

A more insightful approach might be that of theorists of the diffusion of economic ideas, who identify three drivers of change in economic policy adoption.<sup>8</sup> These are: first, the role of internal political actors (including not only politicians and academics but also finance and banking officials) to whom decision-makers listen; second, external pressures from the international community, both market actors such as banks and governments with strategic interests; and third and possibly most importantly, the influence of ‘epistemic communities’, or key intellectual elites within a particular discipline, in this case not only economics but also finance and management. The epistemic community not only influences policy makers directly by presenting dominant ideas as the only valid ones, but also has a deep influence on local and international officials (e.g. in the World Bank and IMF) through their training at leading universities in the US and, to a lesser extent in the UK.

The epistemic community does not rely upon economics journals to provide the latest research results or analytical models. These are far more quickly available through policy conferences, consultancy missions and even academic working papers. Rather academic journals, and to a lesser extent academic book publishers, act as arbiters of what is considered sound research. In the case of the literature on the effect of financial development on economic growth, and the benefits of specific institutional forms in particular at least, it seems that the profession has failed in its proper duty.

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<sup>8</sup> This paragraph is based on the editors’ introduction to FitzGerald and Thorp 2005

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