

FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH: A CRITICAL VIEW

Background paper for *World Economic and Social Survey 2006*

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1. Introduction

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 mobilising 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.

Financial development thus 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. Yet financial intermediation has strong externalities in this context, which are generally positive (such as information and liquidity provision) but can also be negative in the systemic financial crises which are endemic to market systems.

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Financial development and economic growth are thus clearly related, and this relationship has occupied the minds of economists from Smith to Schumpeter; although the channels and even the direction of causality have remained unresolved in both theory and empirics. Moreover, the wide range of organisational forms involved precluded any clear conclusion as to what kind of financial institutions might maximise economic growth.

None the less, strong causality from particular forms of organisation of financial institutions towards rapid economic growth has recently become a central axiom of economic theory, 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 summarised by Table 1 below, 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 associated with higher levels of productivity and thus income per capita. Second, that the latter 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.

Table 1: “Financial Development by Income group, Worldwide, 1990s”
(asset capitalisation 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 structure was held to reflect the imperatives of ‘financial

development' based both on research in developing countries and the concurrent process of financial market liberalisation under way in the advanced economies which were moving away from national bank-based systems towards open capital markets. These reforms were 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 debated have been the series of financial crises that have erupted since the mid-1990s; but the decline of funding for large firms in productive sectors, and SMEs in general, is also a major problem and is probably even more significant for sustainable growth and poverty reduction in the long run.

This paper has the following structure. Section 2 sets out the theory and empirics on the relationship between financial development and economic growth, which underpin the 'new standard model' of financial reform in developing countries. Section 3 examines the growing empirical evidence that 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 investment in Section 4; and the consequences for macroeconomic stability in Section 5. Section 6 concludes with the policy implications of the arguments and evidence presented in this paper.

2. The impact of financial development on economic growth

According to McKinnon (1973) liberalisation of financial markets allows financial deepening which reflects an increasing use of financial intermediation by savers and investors and the monetisation of the economy, and allows efficient flow of resources among people and institutions over time. This encourages savings and reduces constraint on capital accumulation and improves allocative efficiency of investment by transferring capital from less productive to more productive sectors.

The efficiency as well as the level of investment is thus expected to rise with the financial development that liberalisation promotes. These benefits include a decrease in firms' in

self-investment at low and even negative rates of return, allocation of credit by capital markets rather than by public authorities and commercial banks, a shift away from capital-intensive investments due to the higher cost of capital reflecting its scarcity, the lengthening of financial maturities, and the elimination of fragmented and inefficient curb markets (Balassa, 1993). Development of the financial system facilitates portfolio diversification for savers reducing risk, and offers more choices to investors increasing returns. Another important function of financial system is to collect and process information on (productivity-enhancing) investment projects in a cost effective manner, which reduces cost of investment for individual investors (King & Levine, 1993b). The productive capacity of the economy is determined by the quality as well as by the quantity of investment and capacity utilisation is as important as the installed capacity. Easing credit constraint, particularly working capital, is expected to improve the efficiency of resource allocation and thereby reduce the gap between actual and potential output.

This new model is not clear about what institutional forms should in fact replace the previous system, which was clearly inefficient but did directly support strategic investment and growth objectives. In fact, financial systems serve five broad functions. First, they produce information ex ante about possible investments. Second, they mobilise and pool savings and allocate capital. Third, they monitor investments and exert corporate governance after providing finance. Fourth, they facilitate the trading, diversification and management of risk. Fifth, they ease the exchange of goods and services. While all financial systems provide these financial functions, and each of these functions can be expected to have an impact on economic growth, there are large differences in how well they are provided. There are three basic characteristics of financial systems that are now regarded as capturing the impact of these five functions on economic growth: (i) the level of financial intermediation; (ii) the efficiency of financial intermediation; and (iii) the composition of financial intermediation.

First, the level of financial intermediation: the size of a financial systems relative to an economy is important for each of the functions listed above. A larger financial system

allows the exploitation of economies of scale, as there are significant fixed costs in the operation of financial intermediaries. As more individuals join financial intermediaries, the latter can produce better information with positive implications (an externalities) for growth, a channel emphasised in some of the earlier theoretical models of the finance-growth literature (e.g. Greenwood & Jovanovic, 1990; Bencivenga & Smith (1991)). A larger financial system can also ease credit constraints: the greater the ability of firms to borrow, the more likely that profitable investment opportunities will not be by-passed because of credit rationing.

A large financial system should also be more effective at allocating capital and monitoring the use of funds as there are significant economies of scale in this function. Greater availability of financing can also increase the resilience of the economy to external shocks, helping to smooth consumption and investment patterns. More generally, a financial system plays an important function in transforming and reallocating risk in an economy. Besides cross-sectional risk diversification, a larger financial system may improve intertemporal risk sharing (Allen & Gale, 1997). By expanding a financial system to more individuals there will be a better allocation of risks, which can in turn boost investment activity in both physical and human capital, leading to higher growth rates.

Second, the efficiency of financial intermediation: the channels linking the size of the financial system and growth effectively assume a high quality of financial intermediation. The efficiency of financial systems, however, cannot be taken for granted, especially as information gathering is one of their key functions. Asymmetric information, externalities in financial markets (Stiglitz & Weiss, 1992) and imperfect competition (for example, as a result of fixed costs) can lead to sub-optimal levels of financing and investment, an inefficient allocation of capital, or have other undesirable consequences such as bank runs, fraud or illiquidity which are detrimental for economic growth. Some of these market imperfections may be best addressed through appropriate oversight by a public body but the legal and institutional background (including competition policy) may also foster the efficiency of financial markets and hence contribute to economic growth.

Third, the composition of financial intermediation: two important shifts in the composition of financial intermediation relate to the maturity of financing available and the growth of capital markets and institutional investors such as pension funds and insurance companies. The maturity of loans and bonds may affect the extent to which certain investments may be profitably exploited. On the other hand, the replacement of banks by markets appears to be a result of changes in the cost of intermediation. As noted by Jacklin (1987), there is no specific advantage to banks. If liquid equity markets exist, all agents will save through equities as they offer higher long-term returns. Indeed, the earliest corporate finance models even suggested the irrelevance of the choice of financing for company's investment decisions (Modigliani and Miller, 1958).

One potential channel for the composition of financial intermediation to affect the efficiency with which firms allocate resources is through its impact on corporate governance. There are however no theoretical models that assess the role of markets as opposed to banks in boosting steady-state growth through their impact on corporate governance. Indeed, starting with Berle & Means in 1932 many researchers have observed the limited corporate governance capability afforded by markets, either because of diffused shareholdings - which leads to managerial discretion - or because of the excessive power often exerted by controlling owners - which can distort corporate decisions (Shleifer & Vishny, 1997).

The pioneering study by King and Levine (1993) and subsequent work by Levine and Zervos (1998), Levine (2000), Levine et al. (2000), and Beck and Levine (2001) have provided new evidence in an attempt to resolve this debate. They identify three indicators of financial sector development that are best at explaining differences in economic growth between countries over long periods: bank credit to the private sector, stock market activity (proxied by the turnover rate or the ratio of traded value to GDP), and features of the legal system such as the extent of shareholder and creditor protection².

² Levine et al. (2000) and Beck and Levine (2001) also correct some methodological problems in Levine and Zervos (1998). The latter analysis does not account for potential simultaneity bias nor does it control

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. He concludes, therefore, that ‘maybe Schumpeter was right’. A somewhat different conclusion, albeit supportive for the general direction of the argument is that of Aghion et al (2005) who claim that financial development explains whether there is convergence or not but it does not exert a direct effect on steady-state growth.

Other studies have shown further light on the transmission channel between bank credit and growth. Gavin and Hausmann (1996) have found that high ratios of bank credit to GDP in Latin America are associated with smaller detrimental effects of volatility on long-run growth. A study by Aghion et al. (2004) has confirmed this relationship for a cross-section of 70 OECD and non-OECD countries. They surmise that mitigating the response to volatility and exogenous shocks may be the most important transmission channel for the effects of deeper credit markets.

Table 2: Summary of characteristics and indicators of financial development used in empirical studies

Characteristic of financial development	Indicator of financial development
Level of financial intermediation	Size of bank credit relative to GDP
Efficiency of financial intermediation	Stock market turnover rate / stock market traded value relative to GDP; legal rules and corporate governance activism
Composition of financial intermediation	Maturity of bank credit and fixed income securities

Finally, a related empirical literature has also started to look at the impact of financial development on income inequality and poverty. While growth itself appears to be broadly neutral with respect to income distribution (Dollar & Kraay, 2001), it is possible that specific growth determinants could have a regressive effect, while others may have a

explicitly for country fixed effects. Levine et al. (2000) use the Laporta et al. (1998) measures of legal origin as instrumental variables to demonstrate causality.

progressive one. Li et al. (1998) found that financial depth (proxied by private sector credit) entered strongly and significantly as a contributor to lower inequality and raise the average income of the lower 80 percent of the population. Honohan (2004) presents initial evidence suggesting that private sector credit reduced absolute poverty rates in a sample of 70 countries. On the other hand, adding stock market capitalisation and/or market turnover to the equation did not significantly alter fit or other coefficients, while the new variables were not significant. Beck et al. (2004) also provide empirical evidence showing that financial development reduces income inequality and absolute poverty levels.

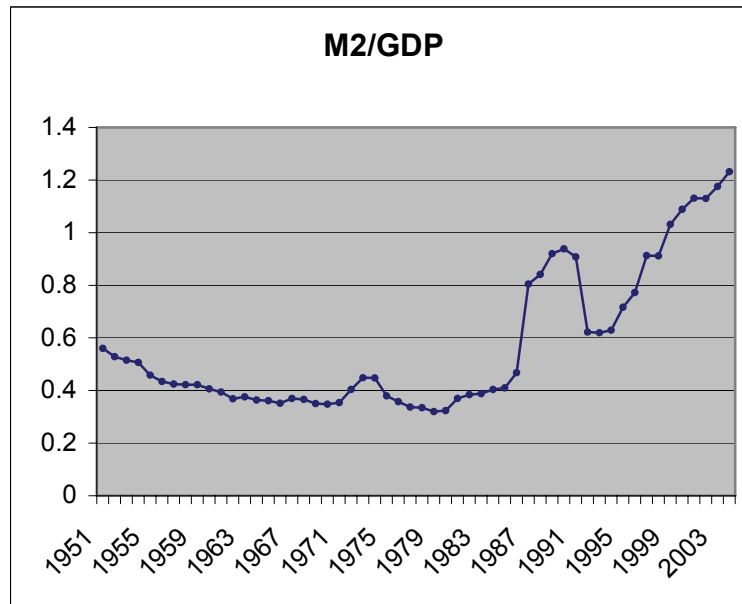
3. Examining the Empirical Evidence on Financial Development and Economic Growth

We now turn to a closer examination of the empirical evidence on the linkage between financial development and economic growth. As a canonical example, King & Levine (1993) 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.³ 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 issue. In fact the widely used M_2/Y 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 – indeed it is as likely to be associated with asset bubbles as with financial development proper. Figure 1 below King & Levine measure of financial depth applied to the UK over the long run. While the increase in the measure during the 1980s does clearly reflect the major financial liberalisation and modernisation of that decade, did the UK really become *less* financially developed between 1950 and 1980, or during the early 1990s?

³ This point on regional differences in financial structure is taken up again in Section 5 below.

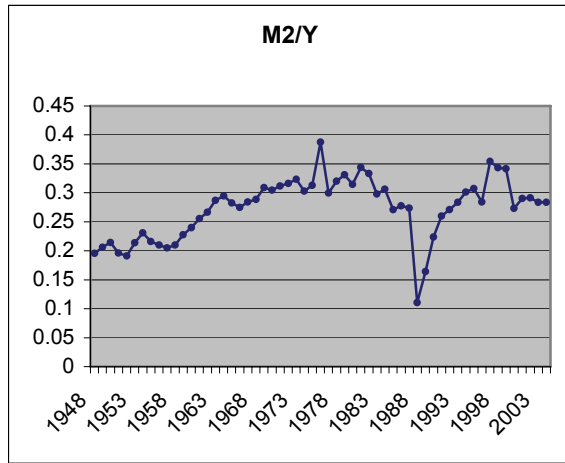
Figure 1: King & Levine measure of financial depth applied to the UK over the long run



Source: IMF/IFS

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!

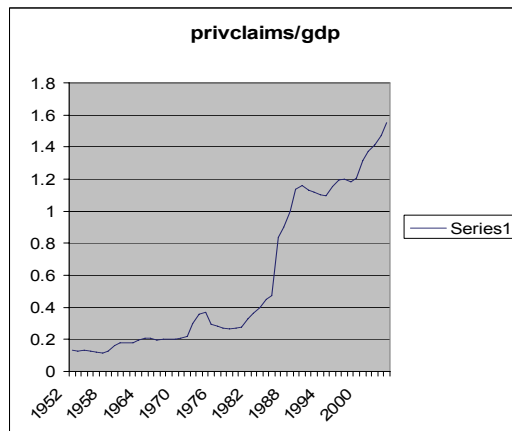
Figure 2: King & Levine measure of financial depth applied to Mexico over the long run



Source: IMF/IFS

In case it might be thought that a broader measure of financial assets than the M_2 used in these cross-section studies would yield more reassuring results, we can look at the long-run evolution of total financial claims on the private sector. Figure 3 shows this measure (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 much more evident, yet there are also shorter-term movements which clearly reflect asset bubbles and shifting monetary policy stances.

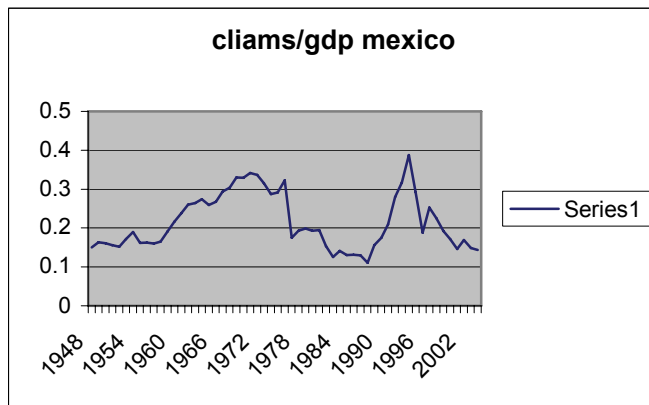
Figure 3 Claims on the private sector, UK



Source: IMF/IFS

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 liberalisation; but by the same token 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. 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/IFS

It is important 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 (first characteristic of financial development) 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. The second and third measures in Table 2 (stock market liquidity and legal rules), on the other hand, are measures of the efficiency of financial intermediation (second characteristic of financial development).

Further, King & Levine and the other studies surveyed in the previous section do not find any explanatory power in the ratio of stock market capitalisation to GDP or in the size of stock markets relative to that of banks. The large fixed costs of a stock market listing may

explain why in countries with few large companies the balance between bank financing and capital markets is more tilted towards the former (World Bank, 2004). Moreover, firm-level evidence shows that there are complementarities between banks and markets in developing countries (Demirguc-Kunt & Maksimovic, 1996). Another possible indicator of financial development that has not been used in cross-country studies, probably because of lack of data availability, is the duration of bank loans and fixed income securities, which corresponds to the third characteristic of financial development described above. Caprio and Demirgüç-Kunt (1997) show that companies grow faster and are more productive when more long-term finance is available to them. We return to this point in the next two sections.

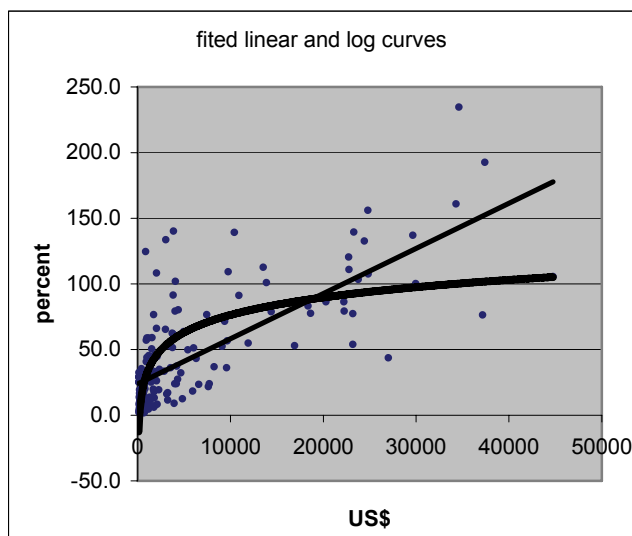
De Gregorio & Guidotti (1995) find that the high level of bank credit to GDP ratios in Latin America during the 1970s and 1980s was actually negatively correlated with growth. They attribute this result to the inadequate regulation and deposit insurance policies of the time, which led to an unwarranted over-expansion in credit and subsequent banking crises. Loayza & Rancière (2004) have also found evidence of a negative relationship between short-term (temporary) changes in bank credit and growth in those countries that present high levels of financial fragility (proxied by credit volatility and frequency of banking crises). Periods of financial fragility in turn have coincided in many countries with financial liberalisation. They claim that these temporary effects are compatible with the positive impact that permanent increases in bank credit have on economic growth over the long term, however.

Previous studies have tended to pool developed and developing countries when examining the relationship between financial development and economic growth. Yet it is quite likely that the impact of financial development will differ depending on the stage of economic development of a country. Furthermore, each of the mechanisms may differ in importance at different developmental stages. The level of financial intermediation may be most important for economic growth at initial stages of development, while for richer countries, the efficiency and composition of financial intermediation may be a more relevant determinant of economic growth. We are not aware of any study that has tried to

shed light on this specific conjecture. The original study by King & Levine (1993) and later ones by Andrés et al. (1999) and Leahy et al (2001), however, are consistent with this view, as they were unable to find significant links between bank credit to GDP ratios and subsequent economic growth rates in OECD countries. On the other hand, the other studies mentioned include developing countries for which there is a robust relationship between these two variables, even though in many cases their financial systems are far from efficient.

The reason for this result is evident from Figure 5, which shows that not only is there an enormous dispersion around the fitted linear trend, but also that 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:

The large differences are evident in Table 3 both within the OECD and between developing regions in the level of financial market capitalisation, but these are not clearly related to economic development or efficiency. 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 securitisation very late in economic development.

Table 3: 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 effect, specific financial functions are carried out by different institutional forms with remarkably similar outcomes. A very good example of this diversity is the institutional form of housing finance (mortgage provision): in the US this is done by securitisation 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 appear to be very different across the world, as Table 4 demonstrates. It is not possible to claim that there is a unique relationship between

financial structure and either levels of, or growth in, income per capita. It is also clear that banks remain central to the financial intermediation process.

Table 4: 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: As Table 3

4. Financial Liberalisation, Savings and Investment

The proponents of financial liberalisation as leading to financial development have emphasised 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). Ending financial repression would also improve bank efficiency by ensuring positive real interest rates, eliminating excessive reserve requirements and removing mandated credit allocations (McKinnon, 1989). Finally, firms are no longer restricted in their investment decision by their own savings capacity in the form of reinvested profits (de Melo & Tybout, 1986).

Extensions of the basic McKinnon-Shaw hypothesis have extended these ideas, by focussing on investment levels (Kapur, 1976; Mathieson, 1980) or investment quality (Galbis, 1977; Fry, 1988) as lending shifts from curb markets into the banking system.

Critics of this model such as van Wijnbergen (1983) or Taylor (1983) are sceptical that increased financial intermediation will result from liberalisation, because of shifts from curb markets that are not subject to the reserve requirement that apply to banks. Hence, if substitution takes place between time deposit and curb market, 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 T-bills), the diversion of funds away from the curb market may result in 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 may reduce the availability of credit for these types of firms unless liberalisation of banking system reduces bias against small borrower.

Experience of financial liberalisation across countries suggests that the process of liberalisation varied widely, as did the outcome. Moreover, in most developing countries where both market and non-market imperfections exist within broader liberalised 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 liberalisation has led to greater allocative efficiency from the point of view of commercial profitability, 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 (1993a) revealed positive and significant cross-section relationship between average 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 declines at both very high and low real interest rate through the effects of these rates on output growth.

In the case of Uruguay de Melo and Tybout (1986) found that reform induced structural shift in savings and investment behaviour 'although these shifts were not entirely as envisioned by proponents of financial deregulation'. In particular the savings constraint for investment in the presence of repression during pre-reform period was not found. Nevertheless, a positive effect on investment efficiency for Uruguay is reported by Noya *et al* (1998). For Argentina no strong relationship between real interest rate and quantity of investment was reported (Morisset: 1993), although an increase in financial deepening was observed (Farnelli *et al*: 1998).

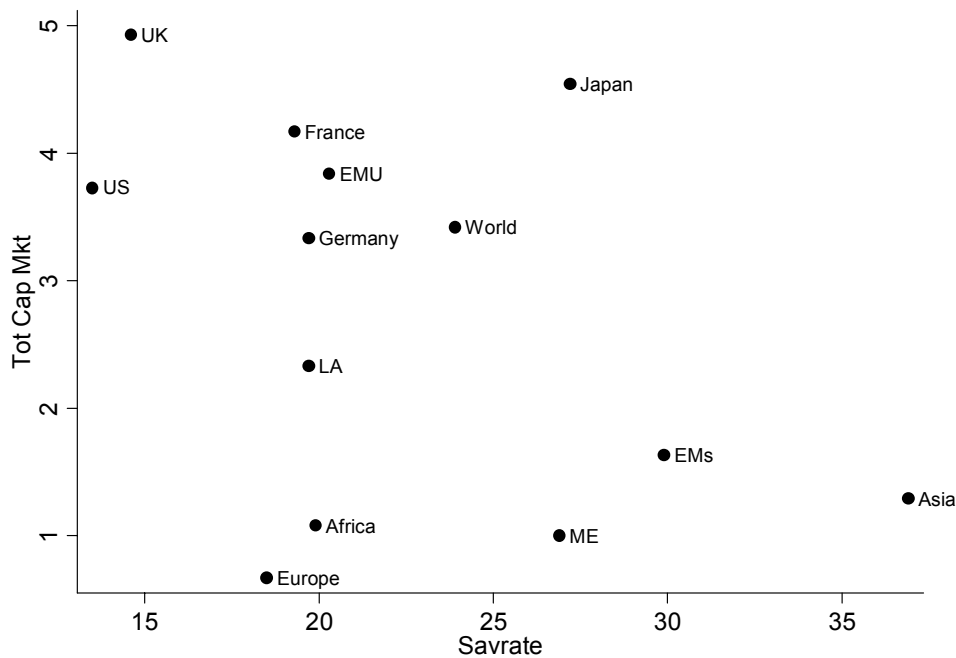
Again, the Mexican experience shows little evidence that movement in real interest rates significantly affected economic performance. While financial saving is positively correlated with real interest rates, total domestic saving appears to be unrelated to the rate of interest, which may imply some substitution 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 *et al* (1998) observed structural change in the aggregate investment equation after financial liberalisation 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 liberalisation has in fact resulted in higher savings rates, which was supposed to be the main contribution to higher investment and

thus growth. 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 liberalisation 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 consequence, as Figure 6 illustrates, there is no robust evidence that financial deepening (measured by the widest possible measure – total market capitalisation) increases the rate of saving and thus investment or growth. In fact, savings rates 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 organisation.

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



Source: IMF Financial Stability Report, 2005

Of course, the effect of financial development and liberalisation might still be positive 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 (1995, 1998) thus attempt to establish whether industrial sectors that are relatively more in need of external finance 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 1980-90, 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; second, the degree of financial dependence used for all countries is that for the US in the corresponding industrial sector; and third, the index of compliance with international accounting standards does not seem to be reliable.⁴

The solution 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 expect, therefore, to find a large effect on aggregate investment levels from financial liberalisation.

⁴ Specifically, Rajan & Zingales give the following index values (implicitly set for US = 100) among others: Austria (54), Mexico (60), Germany (62), Netherlands (64), Philippines (65), New Zealand (70), Malaysia (76), UK (78)!

Indeed, great expectations were raised by of stock markets as a new source of corporate finance in developing countries in the early 1990s. However, this boom was closely associated with capital inflows, producing an apparent correlation with economic growth (e.g. Levine & Zevos, 1998). However, 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.

Table 5: Net sources of finance, 1970-94 (% 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.

5. Financial Liberalisation and Economic Instability

The success of resource allocation efficiency depend to a great extent on minimising emerging capital market imperfections such as moral hazard and adverse selection (Watson, 1993). Stiglitz & Weiss (1981) showed that an equilibrium loan market rate is characterised by credit rationing; and Mankiw (1986) shows 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. The bank thus turns down 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. Moreover, much the same happens in capital markets.

This constrains the desired level of investment to that fundable by cash flow and trade credit; resulting in a sub-optimal level of investment with consequences for over all economic growth. Further, the higher cost of capital induces the borrower to choose riskier projects, as higher risk is associated with high returns on good outcomes. This may result in higher probability of default. A small increase in the riskiness of some potential borrowers can cause the credit market for them to collapse even though there may not be any change in the expected return of investment projects and still remain socially profitable at a higher interest rate. Hence the market equilibrium, if any, will be very 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 characterised by unobservable heterogeneity, as long as return exceeds opportunity cost. Market failure in a liberalised financial regime may thus call for some *selective* public intervention. Stiglitz can thus suggest that a degree of continued financial repression may be beneficial until a very advanced stage of the development process.

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 come not only from increased financial savings and greater availability of credit, but also its favourable impact on risk-sharing relationship between borrowers and lenders (Villanueva & Mirakhor, 1990). The pace of liberalisation 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 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, since information collected through monitoring the financial institutions regarding their solvency and management practices by individuals is costly and becomes a public good, there would be sub-optimal expenditure by depositors on monitoring them (Fry, 1997). As financial institutions know that depositors do not adequately monitor them, they have incentives to take greater risks with their deposits. However, as long as central bank plays its due role of supervision and monitoring and makes the information public this cost could be minimised. Nevertheless, non-existence of markets does not necessarily imply that public intervention would result in superior outcome. There may be other markets dealing with the problem (e.g. higher equity participation to tackle uncertainty problem, specialised institutions/banks for industrial credit, leasing company). So the pertinent question is why those contingent-markets are absent. Public intervention as substitute for market failure can suffer from exactly same problems of unobservable outcome (eg contractual default); unobservable behaviour (eg moral hazard); or unobservable characteristics (eg adverse selection) (Obstfeld & Rogoff, 1996).

A major problem for developing countries in this context is 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 modernisation projects on the one hand. On the other hand, it becomes impossible to for firms to hedge against exchange rate changes, further destabilising foreign currency markets; and monetary intervention in order to counteract external shocks becomes very difficult. Financial liberalisation 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 monetisation (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 liberalised environment itself causes a moral hazard problem and induces the banks to take on risks: “a further factor contributing to moral hazard is the erosion of bank franchise values as ceilings on deposit interest rates are lifted and barriers to entry reduced” (Brownbridge & Kirkpatrick, 1999). Last but not least, in many developing countries, due to liberalisation and consequently new entry of banks and other financial institutions, demand for supervisory activities has increased at a higher rate than the supervisory capacity – itself undermined by budget constraints and competition from private sector for skilled staff.

Financial liberalisation 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. Analysing the impact of exogenous changes in short-term capital flows on real sector of the economy, FitzGerald (1997) suggests that “the impact on the firms sector is mainly through the

supply of working capital, which generates 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." Moreover, while an increase in the real rates of interest hardly stimulates aggregate savings, it clearly discourages private investment, worsens public debt service burden and in this context, attracts volatile capital flows which increasing the budgetary cost and also the vulnerability of domestic firms. Although the inflow of funds takes place over a period of time, the outflow occurs suddenly with its impact on the real sector and the economy as a whole. The orthodox policy response to these crises can further worsen the situation as firms are forced into bankruptcy by high real interest rates 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 liberalisation. From the point of view of firms, faced by irreversible investment decisions, macroeconomic stability and policy credibility may be much more important than tax incentives or freedom from regulation (Pindyck and Solimano: 1993).

In sum, the *process* rather than the *objectives* of financial liberalisation has emerged as the central problem, where the 'big bang' appropriate is clearly dangerous. Clarke (1996) suggests that 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 that required to equilibrate savings and investment. In the process an increase in repression (or control) in some areas of financial markets is essential in order to ensure that the whole process does not go out of hand during the transitional period (Farnelli & Medhora, 1998).

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. Literatures on sequencing of financial liberalisation seek to determine the optimal order for liberalising the domestic real sector, the domestic financial sector, the external real sector and the external financial sector. Studies on this aspect further examine the issue of synchronisation the order of liberalisation with macroeconomic stabilisation. It is generally agreed that domestic financial liberalisation should come after domestic real and before external financial sector liberalisation. However, it is not very clear whether domestic financial liberalisation should come before or after external liberalisation e.g. trade liberalisation (Gibson and 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 liberalisation (Aivazian: 1998).

Sikorski (1996) points out that financial liberalisation 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; Soskice, 1991). 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 for economic performance.

6. Conclusions

In this paper four main points have been made:

1. The potential contribution of financial development to economic growth is considerable, but cannot be taken for granted depends on the construction of the appropriate institutional structure.

2. Conventional measures of financial ‘depth’ (in terms of private assets) and financial ‘development’ (defined as moving from banks towards capital markets) are not associated with higher rates of economic growth.
3. Financial liberalisation leads to more efficient and liquid financial intermediation, but does not appear to raise the rates of domestic savings or investment in the aggregate.
4. The efficiency gains from the standard model of financial liberalisation in terms of investment allocation and corporate governance can be outweighed by new of instability from short-term foreign capital flows.

The implications of these findings are substantial:

- i. First, it is necessary to reappraise the role of commercial banks in developing countries, which have been the traditional intermediaries between saving households and investing firms, but have more recently moved into asset management and fee-based services. The move away from the financing of productive investment in general, and SMEs in particular, has been encouraged by regulators concerned for bank liquidity.
- ii. Second, the decision to close 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, support for debt securitisation and market making rather than traditional bank credit.
- iii. Third, the relaxation of regulatory restrictions (e.g. deregulation of interest rates, removal of controls on bank credit allocation, removal of entry prohibitions into banking, increased competition in the financial sector, deregulation of stock markets, and full convertibility of currencies) without adequate institutional provision (plus fiscal reform and balance of payments stability) can engender serious financial crises and create systemic risks. Greater rather than less public intervention is thus needed in emerging markets, geared to raising levels of productive investment and thus growth.

- iv. Fourth, the irreversible nature of productive investment means that monetary policy (including exchange rates) should be geared towards providing credible stability for firms: specifically a low and stable real interest rate and a competitive real exchange rate, supported by appropriate tax incentives.
- v. Fifth, effective liberalisation requires the removal of restrictions on market transactions at one level and the simultaneous imposition of new regulatory and legal provisions on financial intermediaries at another level: these should aim to not only to prevent bank fragility but also to contain shocks to corporate balance sheets.
- vi. Sixth, 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 stabilise exchange rate expectations and enable the monetary authorities to intervene effectively to damp macroeconomic cycles caused by external shocks.

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