INDIAN INSTITUTE OF MANAGEMENT CALCUTTA

WORKING PAPER SERIES

WPS No. 647/ October 2009

Financial Development and Poverty Reduction: Linkages and Policy Options.

by

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*The author is grateful to the World Bank Institute for commissioning and funding this paper, and thanks, in particular, Abayomi Alawode for useful comments and suggestions.

Financial Development and Poverty Reduction: Linkages and Policy Options.

Introduction

Developing or strengthening a poverty reduction strategy is on the agenda of about 70 low-income countries, most immediately in the countries receiving debt relief under the enhanced HIPC (Highly Indebted Poor Countries) Initiative. Despite increasing evidence of the linkage, poverty reduction practitioners still ignore financial markets. One testimony to this is the Sourcebook that has been developed to date to assist countries in the development and strengthening of poverty reduction strategies. It is striking that no reference has been made to the development of financial markets as one of the essential ingredients. Fortunately the Sourcebook is a "living document" which is expected to change in light of experience and comments.

Another example of a lapse is in the recent vision of a global partnership for development, which committed the UN member-states to sustained development and the eradication of poverty. This vision was embodied in the Millennium Development Goals (MDGs) at the Millennium Summit in September 2000. Neither in the targets, nor in the means of generating resource flows to achieve these targets has the domestic financial sector found a place.[1]

This paper will show how financial sector development reduces poverty both directly and indirectly through its contribution to economic growth. After an extensive review of the literature, a recent paper concludes that, while there are countervailing views, the preponderance of evidence points to the importance of both financial intermediaries and markets for growth and that reverse causality, where economic development leads to the development of financial markets, is not solely behind the observed relationship.[2] Neither can simultaneity bias explain the link. Furthermore, several recent papers have established that mainstream finance is not only important for raising incomes of the poor, but is also pro-poor, both in terms of reducing numbers of poor, and improving income distribution.

This paper will use the literature as a base for developing a background paper that can be used as a platform for a training program for World Bank staff and policy makers in developing countries on how finance can contribute to poverty reduction. The chosen format is one that is amenable to the dissemination of recent findings rather than a critical review of the literature. While a detailed bibliography has been assembled to aid easy reference, it has not been possible to examine each one for the purposes of this paper.

The paper documents the relationship between financial market development and poverty alleviation, both directly and indirectly through growth. Theoretical arguments can exist and have been postulated for the relationship to be positive or negative. This paper dwells almost exclusively on the empirical findings, however, since it is actual experience that is likely to be most useful to decision makers. Theoretical postulates are presented only to the extent that they have actually been tested.

Functions of Financial Markets

This section focuses on the key services provided by the financial system, as particularly relevant to growth and poverty alleviation.[3]

Payments

At the most primitive level, the financial sector displaces bilateral arrangements and provides ease of payments. Bilateral arrangements are generally practiced by the poor. As an economy develops and becomes more specialized, it requires more transactions, each of which is costly. Financial markets can ease exchange by lowering transaction costs and increasing security of making small payments locally, nationally and internationally and hence aid economic development.[4]

Savings

Effective financial intermediation can increase the pool of savings, mobilize them, and allocate them effectively. Savers are incentivized to increase their savings when they are confident in obtaining a positive real rate of return. Assuming the existence of profitable investment opportunities, and a stable macroeconomic environment keeping inflation in check, intermediaries can provide them this return by channeling their savings to such opportunities. Effective intermediation then can mobilize these savings both intra-temporally from the savers to the investors and possibly the dissavers, and inter-temporally by maturity transformation and pooling of resources. Of course financial intermediaries that engender trust are key elements in mobilizing these savings from cookie jars into usable funds.

Most developing countries suffer from a mismatch between the need for investment and of course consumption, and the paucity of savings. In the past the gap has been filled through structural adjustment programs, such as the introduction of development finance institutions and other such vehicles, which provide credit at below market rates for the purchase of capital, and aid to the poor. To the extent that deposits exist, policies often introduced into developing countries by donors, such as concessionary discount facilities in Central Banks (vehicles for handling donor funds), high reserve requirements and extensive use of targeted credit programs have discouraged deposit mobilization. [5]

Microfinance studies have shown that numerous small savers exist, even in the poorest sectors of the least developed economies. Such countries, however, often lack an appropriate financial sector which could provide incentives for individuals to save and efficiently convert these savings into credit for borrowers.

Capital markets can also mobilize savings by creating small denomination instruments. These instruments garner savings from many diverse individuals by providing opportunities for households to hold diversified portfolios.[6]

Finally, the domestic savings are limited by the size of the domestic product. More savings can be mobilized for productive purposes from abroad. Financial markets can serve to garner foreign savings. As faith in domestic markets increases, capital can flow from capital-rich to capital-poor nations where the marginal productivity of capital is higher. In this way a greater mobilization of foreign savings can be realized to augment domestic savings.

Credit

Once the savings have been mobilized, and intermediaries have funds to channel, they can provide credit both for consumption and for investment. By engaging in inter- and intra- temporal smoothing, intermediaries can directly benefit the poor. Of course the poor who have no income to smooth will continue to require donor credit for consumption in the interim as they obtain the human or physical capital necessary for generating income. As the financial sector develops, it can replace donor support as it first provides credit for capital to the poorest of the poor, and finally even interim consumption credit.

The importance of financial development in providing credit for investment is because of its effect on growth. The 1980s growth literature suggests that an economy's growth is endogenous[7] and can be written as a linear function of the aggregate capital stock:[8]

$$g = A(I/Y) - \delta = A\,\tau\,s - \delta$$

where

g is the growth rate
A is the social marginal productivity of capital
I is investment
Y is income
τ is the proportion of saving channeled to investment
s is the private saving rate S/Y, and
δ is the depreciation rate.

If we assume for the moment that δ is exogenous, the financial sector raises growth by enhancing s, A and τ.

We have already seen how providing a positive real rate of interest and the promise of trustworthy inter- and intra- temporal smoothing can increase the private saving rate s as well as reduce the leakage of these savings into cookie jars thereby increasing τ. Some have noted that the emergence of private banks may reduce τ, or the savings channeled into capital formation. As government reduces its involvement in directed credit, liquidity-constrained consumers may increase demand for consumption credit, commercial construction and housing. It should be noted that intermediation has not caused a lower saving rate s, but in fact a higher leakage or a lower τ.[9] Better allocative efficiency or a higher A may outweigh the previous effect and in the net growth may still be enhanced.

Certain features of credit allocation make financial institutions particularly suitable to intervene to enable optimum allocation.[10]

1. Economies of scale in information gathering and allocating capital

Many models assume that capital flows toward the most profitable firms. This assumption requires that investors have good information about firms, managers, and market conditions. Individual savers, however, may not have the ability to collect, process, and produce information on possible investments. In addition, they may not have the technical know-how to evaluate firms, managers, and market conditions before making investment decisions.

The reluctance of savers to invest in activities about which there is little reliable information might impact both s and t negatively. Financial intermediaries with better ability to acquire information could allocate funds to investments with the highest marginal productivity. These could include ventures using both existing and innovative technology, thus also boosting the rate of technological innovation. Both raise A and in the process also surmount saver hesitancy, thus enhancing s and t.

In more developed markets, the role of information gathering is often done by specialized agencies that then sell this information to small savers or to intermediaries. The *Credit Rating Agencies* (CRAs) do not themselves provide credit but aid the allocation of credit.

Financial intermediaries can correct for capital market imperfections that impede investment in human capital. In the presence of indivisibilities in human capital investment and imperfect capital markets, the initial distribution of wealth will influence who can gains the resources to undertake human capital augmenting investments. Intermediaries can overcome this initial suboptimal distribution of wealth, by allocating funds for an optimal development of human capital.[11]

2. Externalities in monitoring firms and exerting corporate governance

Large information asymmetries typically exist between managers and small shareholders inducing a "freerider" problem. Since monitoring managers has externalities, small stockholders could play the waiting game, hoping another will undertake the costly process of monitoring that they can benefit from. This would generate under-monitoring. To the extent that intermediaries effectively monitor firms and induce managers to maximize firm value, they can improve the efficiency with which firms allocate resources and make savers more willing to finance production and innovation.

The absence of effective intermediaries has often led to concentrated ownership in developing countries. These owners are frequently powerful families that use pyramidal structures, cross-holdings, and super voting rights to magnify their control over many corporations and banks.[12] They then translate their corporate power into political influence and use this influence to shape public policies in ways that protect them from competition and subsidize their ventures.[13]

As debt contracts become more prevalent, managerial slack could be reduced and the rate at which managers adopt new technologies accelerated.[14] Intermediaries can economize on aggregate monitoring costs and eliminate the free-rider problem by doing the monitoring for all the investors. The cost of acquiring information falls as they develop long-run relationships with their debtors.

A well functioning stock market also fosters corporate governance. Public trading of shares in stock markets that efficiently reflect information about firms allows owners to link managerial compensation to stock prices, aligning the interests of managers with those of owners. Better stock markets can promote better corporate control by easing takeovers of poorly managed firms. The threat of a takeover will help align managerial incentives with those of the owners.[15]

Some have argued to the contrary, that well functioning stock markets can hurt corporate governance, but this is not a prevailing view.

Risk Mitigation and Insurance Provision

Financial contracts, markets and intermediaries have the ability to ease the trading, hedging, and pooling of risk.

Financial markets can diversify *cross-sectional risk* that is associated with individual projects, firms, industries, regions, and countries. Without financial arrangements that allow agents to hold diversified portfolios, risk-averse agents will avoid risky and innovative projects as these would make the proportion of risk in their portfolios disproportionately high. Given a risk-return trade-off, returns would also be compromised. By allowing agents to hold a diversified portfolio of risky projects, financial markets enable a reallocation of savings toward high-return and innovative ventures, thus facilitating technological change and economic growth.[16]

Intermediaries can help to smooth *intertemporal risk*.[17] Risks that cannot be diversified at a particular point in time, such as macroeconomic shocks, can be diversified across time. Long-lived intermediaries can facilitate intertemporal and even intergenerational risk sharing by investing with a long-run perspective and offering returns that are relatively low in boom times and relatively high in slack times. While this type of risk sharing is theoretically possible with markets, intermediaries may increase the feasibility of intertemporal risk sharing by lowering contracting costs.

Innovative risk-management products such as monsoon-indexed lending could provide insurance against the possibility of debt default. The intermediary can price the risk by pooling portfolios across time and regions. The use of debit card based e-accounts that combine transactions and savings functions could be used as a conduit to provide wide access to risk-management accounts. Smart cards have already been used in South Africa, Mexico and India.[18]

A third type of risk, *liquidity risk*, arises as a result of a maturity mismatch between savers and investors perspective. For example, high-return projects require a long-run commitment of capital, but savers do not like to relinquish control of their savings for long-periods. The higher the cost and lower the speed with which agents can convert financial instruments into purchasing power at agreed prices, the higher is the liquidity risk.

Intermediaries can eliminate this risk with maturity transformation, but taking short-term deposits and lending for long-term investments. They provide complete insurance to savers against liquidity risk while simultaneously facilitating long-run investments in high return projects. Liquid capital markets do so by a liquidity transformation: they reduce costs and increase the speed with which savers can liquidate assets -- like equity, bonds, or demand deposits -- if they seek access to their savings. Simultaneously, they transform these liquid financial instruments into illiquid capital investments.[19]

Historical Development of Literature

Literature on Finance and Growth

While the importance of finance in spurring the industrial revolution was recognized even in the 19th century, economists did not in general postulate that financial market development was an important ingredient in economic growth prior to the 90s.[20] The prevailing view was that growth generated a need for financial sector development and not the other way around.[21]

The 1970s: "money and growth" literature argued that economic policy could not alter economic *growth rates* on a sustained basis. Money growth could change the private savings ratio by altering the rate of inflation. This higher propensity to save out of income would result in a more capital-rich economy, but one which, with diminishing marginal returns to capital, would eventually settle down at the same growth rate as before. Since savings were allocated efficiently, productivity could not be altered. This then meant that the rate of growth would be capped.

The theory of financial intermediation blossomed in the 80s, resulting from the formal recognition of inefficiencies due to asymmetric information between the counterparties to a financial transaction. Productivity could be altered by allocating savings more efficiently. Research into the quantitative impact of financial sector development was to follow.

Theoretical advances emphasizing increasing returns to scale and spillovers from investment in education and technology led to the recognition that the rate of growth of economies could be influenced on a permanent basis. But the data could not discriminate between most of the factors that could theoretically influence this growth. The volume of investment and the level of education provision seemed to be the about the only economic variables robust to the inclusion of alternative candidates. Not that the other variables were necessarily irrelevant, but they were too closely correlated among each other to be able to tell which was the driving force and which was merely tagging along.[22]

Then, financial depth emerged as a robust explanatory variable for growth, even after controlling for other explanatory variables.[23] But OLS regressions could not establish the power of finance to generate growth; they could just be verifying that persistently rapid-growth countries required deeper financial systems. The next step was to do away with reverse causality. Studies found that reverse causality and omitted variables bias masked rather than exaggerated the finance-growth effect.

Other approaches that followed used within-country variation in industry characteristics,[24] or time-series variation to examine the effect of financial liberalization on growth.[25] Concomitantly, case studies examined the links between the intensity of financial intermediation and economic performance in individual countries or a region.[26]

Literature on Finance and Poverty

The relationship between financial markets and poverty has recently come under intensifying scrutiny, as development economists have come to grips with the reality that decades of development assistance have not been able to lift the poor out of the poverty trap. Largely ignored until recent times, even by the most important development agencies, financial markets have gained importance as a possible tool to alleviate poverty. In this context, recent studies have tried to evaluate how effective this tool could prove to be.

The studies can be broadly classified into those that study the effect on absolute poverty and on relative poverty, or income inequality, where the absolute income of the poor may increase, but they are less well-off relative to the rich. Most studies examine the effect of growth on poverty. The general conclusion of the literature on finance and growth is that financial market development affects growth positively. It follows, therefore, that the effect of growth on poverty would be a key determinant of the effectiveness of finance as a tool for poverty alleviation.

Kuznets' hypothesis, one of the earliest in this field, suggests that distribution worsens in the early stages of development, and improves later on. Recent work, however, has not found evidence to support his hypothesis.[27] The general conclusion of studies on income inequality is that growth is income neutral, so it certainly has beneficial effects on absolute poverty and no particular effects on relative poverty. One recent study, however, has found a strong positive impact on income distribution.

The direct benefits to the poor from financial development had not been recognized prior to the 1980s. State-owned banks and subsidized lending were meant to be the conduits of financial services for the poor. In practice, however, savings were not effectively mobilized, and credit did not reach much of the poor. Only recently did the World Bank recognize that:

"*To achieve broad-based economic growth and reduce vulnerability, people and enterprises in rural areas need access to financial services. Many developing countries have no formal financial institutions to provide services. Supply-driven agricultural credit has proven unsustainable and unsuccessful and is no longer supported by the Bank...*"[28]

As private institutions did not magically appear in the face of state and supply-driven credit withdrawal, the "microfinance movement" assumed importance.[29] Impact studies have been hard to conduct, given the paucity of data and of resources that have to be diverted to conduct these studies. The emergent view is that the microfinance institutions have generated creative ways of providing financial services that do reach the poor, but their impact is minor, and not generally self-sustaining.[30] Indeed some of the most successful cases are the largest institutions, bringing the circle around to consider the importance of mainstream finance.

Linkages Postulated

This section documents available empirical evidence on linkages between finance, growth and poverty reduction from a review of the literature. It first identifies and presents as 2 flow diagrams, and then summarizes the various methodologies and variables that have been used in studies, as well as the main results that emerge from them. Figure 1 shows the key linkages between financial development and economic growth and Figure 2, the linkages between financial development and poverty reduction.

We do not discuss the extensive literature that has postulated the different theoretical linkages, as several excellent reviews already exist. For example, Levine (2004) has an excellent review on the finance-growth nexus, and Honohan (2004) on the Finance-poverty nexus, and DFID, (2004) surveys both. This paper uses all three as a base.

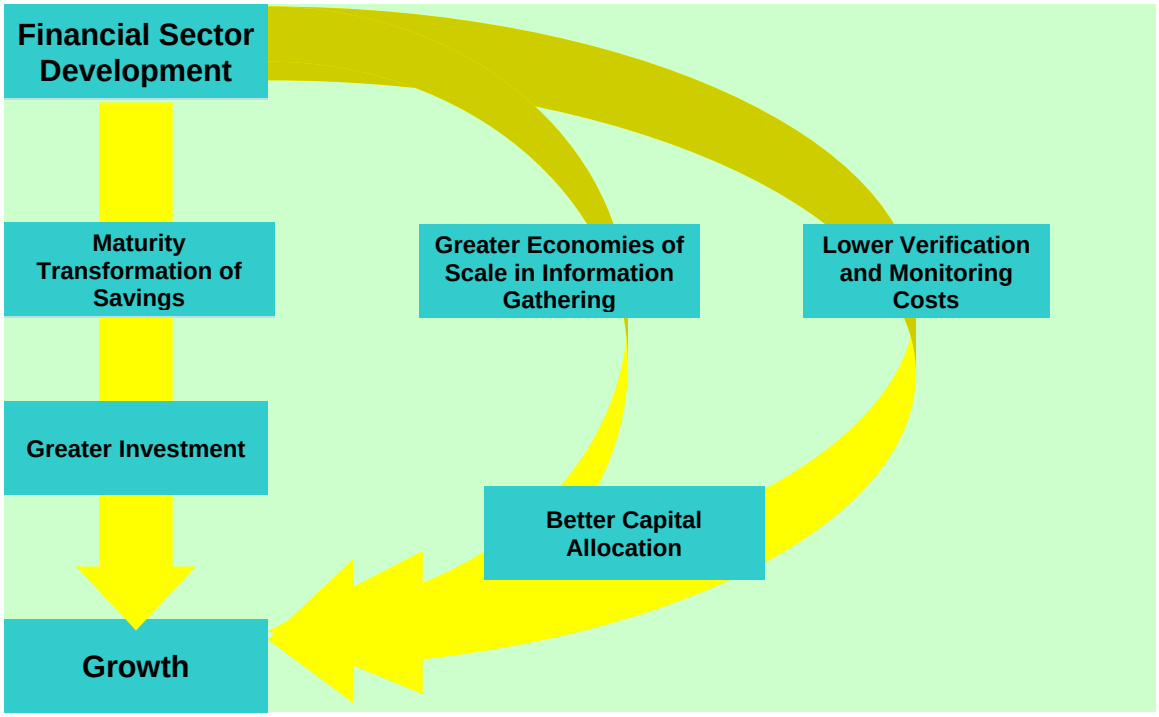

Figure 1: Main Links between Finance and Growth

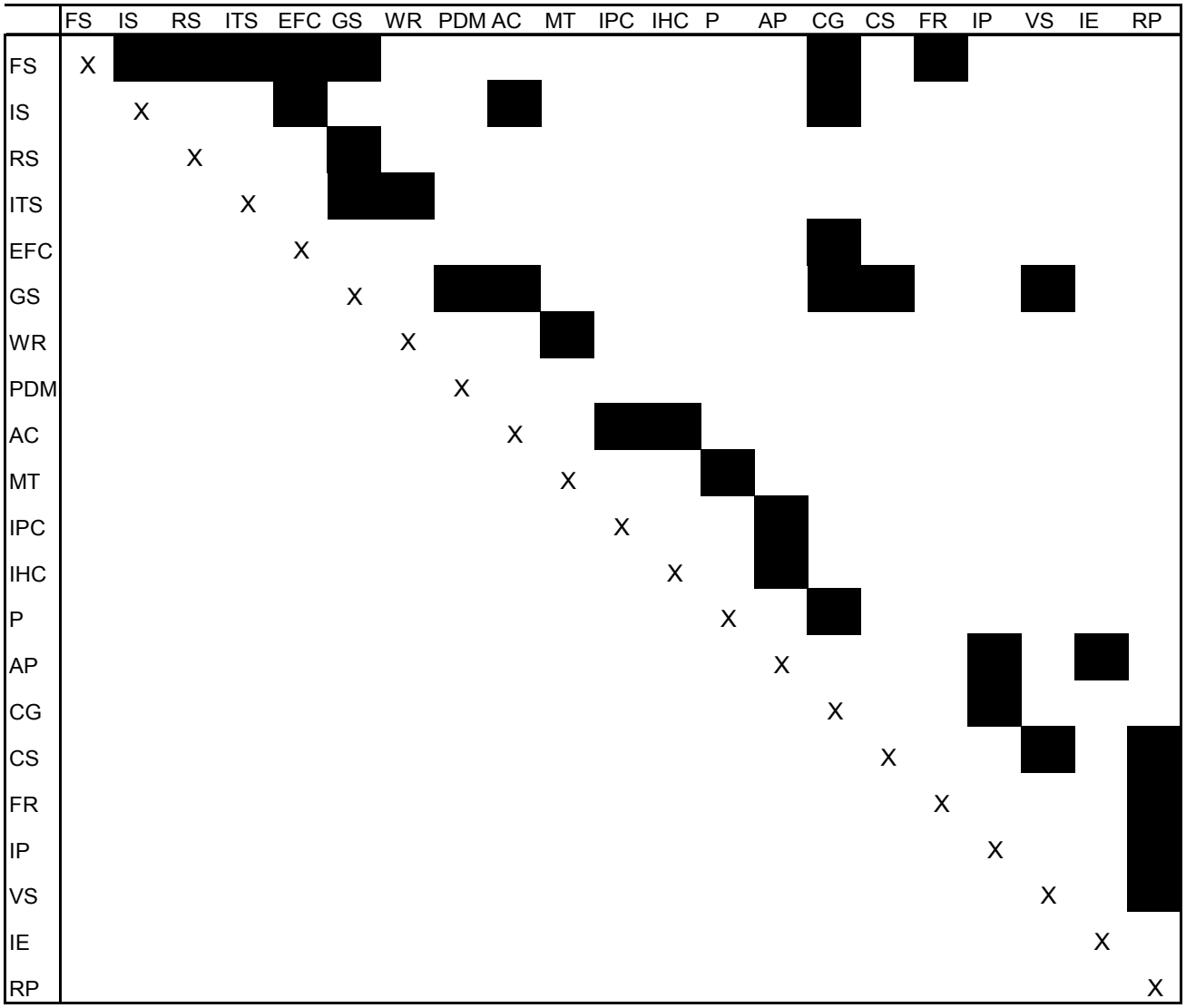

Figure 2: Matrix View of Causal Diagram

Abbreviations:

Financial sector dev=FS, Garnering intl. savings=IS, Higher returns on savings=RS, Inter-temporal smoothing=ITS, Lower external financial constraints for firms=EFC, Greater savings=GS, Greater willingness for risk=WR, Lower precautionary demand for money=PDM, Greater availability of credit=AC, Modern technologies=MT, Greater investment in phys. capital=IPC, Greater investment in human capital=IHC, Greater productivity=P, Higher productive assets of the poor=AP, Higher country growth=CG, Greater consumption security=CS, Increasing foreign remittances=FR, Increase in income of poor=IP, Lower vulnerability to shocks=VS, Higher individual empowerment=IE, Reduction in poverty=RP

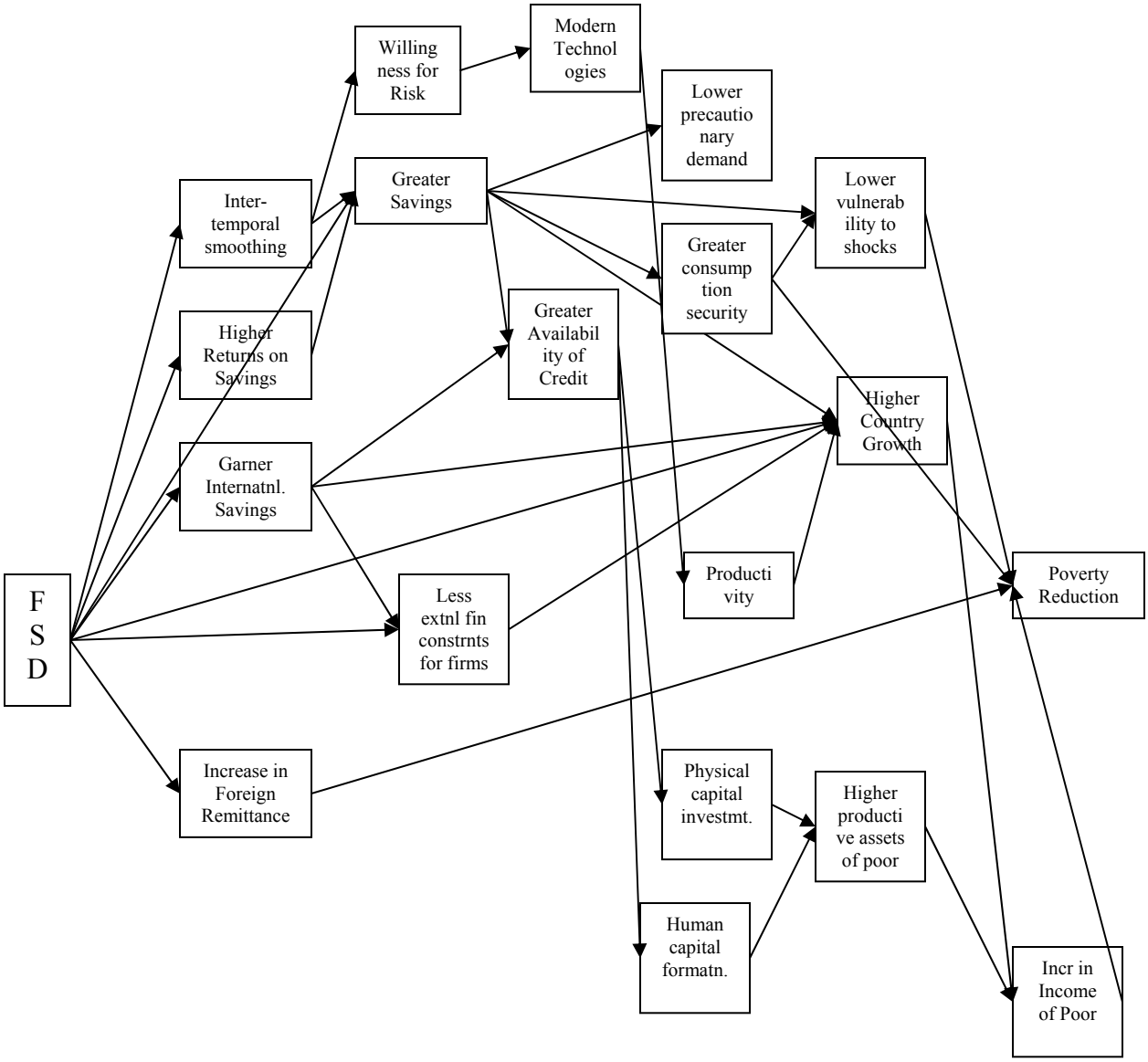

Figure 3: Effects of Financial Sector Development on Poverty Reduction

Methodologies Used in the Literature

1. Pure correlations.
2. Broad cross-country growth regressions. Pure cross-section studies generate estimates of the average effects of financial development, but cannot observe inter-country variation in the relationship. Also with cross-country regressions, the unobserved country-specific effect is part of the error term so that correlation between the error and the explanatory variables results in biased coefficient estimates. Furthermore, if the lagged dependent variable is included in X_1 (which is the norm in cross-country regressions), then the country-specific effect is certainly correlated with X_1.
3. To do away with reverse causality, researchers have used instrumental variables, i.e. variables correlated with financial depth, but not otherwise linked to GDP growth to obtain a modeled value of financial depth. Employing the predicted value of a country's financial depth from a regression using such instruments removes the potential reverse causality bias.
4. Times-series analyses. Analysis of time-series data on individual countries does show that the relationship varies between countries. These studies use Granger-type causality tests and vector autoregressive (VAR) procedures to examine the nature of the finance-growth relationship. One drawback of time-series studies is the typically short time spans of data sets which may not adequately proxy for long-run relationships.
5. Panel techniques. These have certain advantages. They:

    1. Exploit the time-series and cross-sectional variation in the data.
    2. Avoid biases associated with cross-country regressions.
    3. Permit the use of instrumental variables for all regressors, thereby providing more precise estimates of the finance-growth relationship.

    The primary problem with these techniques is that the data they use has to be averaged over a sub-period of the entire time-series data, which as we have pointed out is already fairly short. It would be that much harder to draw conclusions about long run phenomenon from an analysis of short sub-periods.
6. Case Studies provide a more in-depth view of each country. The same history, however, can be interpreted in different ways, and the contribution of any one factor to growth is impressionistic rather than based on statistical analysis.
7. Impact studies for the microfinance and informal sector.
   These studies lack data and encounter methodological problems. Furthermore, it is difficult to derive aggregate results from these studies, since the arrangements and providers are diverse.[31] Most importantly, the time-frame of most impact studies may be too short to reveal the effects of capital accumulation, both physical and human, made possible by access to finance.

Variables Used

Measures of Financial Development

Financial development should lead to an increase in efficiency and competitiveness of the sector. It could increase the range of financial services, the diversity of institutions, the amount of money that is intermediated, the extent to which capital is allocated by private sector financial institutions, particularly to private sector enterprises, the response to market signals, the regulation and stability of the financial sector, and the access to services, particularly by the poor.

Financial development can be measured by the *extent* to which individuals are serviced, by the *efficiency* with which they are serviced, or by the *access* to individuals that they provide. Most studies have used measures of the extent of the financial sector to indicate development, and even these leave much to be desired. Few have used efficiency measures as indicators as these are difficult to quantify and measure. Measures of access have almost entirely been restricted to studies of the microfinance or the informal sector that has data for a microcosm of the population.

One potential source for developing indicators is country FSAP ratings. Conceivably, ratings for prudential and regulatory standards could be used to get one measure of efficiency. Until recently the FSAP ratings focused more on the existence of regulation rather than actual enforcement of the same. For an indicator to reflect the functioning of the financial system, the ratings must ensure that they incorporate the supervision element and not just focus on prudential knowledge.

In most studies an underlying assumption has to be that the extent of the financial sector is positively correlated with the quality of financial functions provided by it. Tables 1 and 2 show the frequency of use of intermediation and stock market indicators.

Intermediation Indicators

Extent

Several *measures of size* have been used to try to quantify the depth of FSD. These include the value of financial intermediary assets or liabilities, usually as a share of economic output, their value added or sheer numbers of branches. They differentiate between who is doing the allocating, and to whom the savings are flowing.

Assets may be a misleading measure in developing countries as there is a tendency to use the banking system quasi-fiscally to keep state enterprises afloat. This could be achieved by having a high degree of private ownership of banks coupled with a high degree of directed credit. One example is China.[32] The measure of credit to private enterprises gets around this problem but may also not be a reliable indicator of development, particularly in less developed markets where institutions tend to lack credit assessment

ability. Too rapid a growth in this indicator may mask a budding problem of non-performing assets, leading to a crisis rather than promised growth in the country. Furthermore, if loan classification rules are nascent or prevalent but not adhered to, the asset-quality problem may be detected too late and generate systemic collapse. One example is the 1997 South East Asian crisis.

When non-deposit money banks are included in credits by financial intermediaries to the private sector, the gap between nascent and developed markets is striking: less than 10 percent of GDP in Zaire, Sierra Leone, Ghana, Haiti, and Syria, but greater than 85 percent of GDP in Switzerland, Japan, the United States, Sweden, and the Netherlands.

Efficiency

Few measures of the effectiveness of intermediaries in fulfilling the functions of the financial sector have been developed. Interest rate spreads are thought of as one such measure. Legal and regulatory changes can make financial intermediation more effective.

The following indicators have been used to study financial sector development. Assets and liabilities are usually normalized by GDP or total credit.

Variable	Description
LL_I	Liquid liabilities of the financial system -- currency plus demand and interest-bearing liabilities of banks and non-bank financial intermediaries, normalized GDP
A_I^T	Total Assets of all financial intermediaries
NFA	Net Foreign Assets
C_I^t	Total domestic Credit. Usually excludes credit to other banks.
C_I^p	Credit to the private sector from all financial institutions. Includes credits extended by the monetary authority and government agencies. This is normalized either by GDP or by C_I^t.
$C_{I\text{-}cb}^p$	Credit to the private sector from banks and other financial intermediaries, but excluding those by the central bank.
C_d^p	Credit to the private sector by deposit money banks.
C_b/C_b+A_{cb}	Size of private intermediation: the ratio of bank credit divided by bank credit plus central bank domestic assets
$1-C_b/C$	Credit to the private sector from non-bank financial institutions measured as the inverse of the share of credit from deposit money banks in total credit. With this measure, a higher share of non-bank presence is taken to indicate more development.
$C_b^{p\text{-}I}$	Claims on the non-financial domestic sector by banks
ν	Value-added of the banking sector as measured in the national income and expenditure accounts. To the extent that prices charged and profits received are market-determined, this measure could reflect the extent of the sector. But it is in the less developed markets, protection and lack of competitiveness in the financial system are likely to increase unit prices and profitability, artificially increasing this measure without commensurately increasing the effectiveness of the financial system
O^p	Degree of private ownership of banks
n	Number of rural banked locations
β	Borrowing constraints
$i_C - i_D$	Spread between the average nominal lending and deposit rate generally indicate the prevalent risk premium. This is a tricky measure, since to the extent that there are rate ceilings, the lending rate does not accurately capture credit risks
$i_C.C - i_D.D$	net interest receipts of an intermediary expressed usually as a percentage of total assets or some other relevant aggregate
ε	strengthening creditor/property rights and contract enforcement

Table 1: Intermediation Indicators

Stock Market Indicators

Market capitalization is usually the indicator used for the extent of stock market development. This measure does not necessarily reflect how well the market facilitates exchange, as it does not always capture the actual amount of capital raised in equity markets. For example, in countries that provide tax incentives for firms to list, capitalization is artificially boosted without indicating greater external financing. Hence it is not necessarily a good measure of the extent of stock market development.

The liquidity of the stock market can be thought of as an efficiency indicator and several proxies have been used to measure it. Their attempt is to measure the cost, speed and security with which loanable funds can be reallocated towards the most productive use. Turnover and value traded are the two most common liquidity measures, expressed as a ratio of GDP, market capitalization or stock return volatility.

The turnover ratio is not a direct measure of trading costs or of the ability to sell securities at posted prices. Rather, the turnover ratio measures trading relative to the size of the market. It therefore reflects trading frictions and information that induces transactions. This ratio exhibits substantial cross-country variability. Developed markets such as Japan and the United States are very active and had turnover ratios of almost 0.5 during the 1976-93 period, while nascent markets such as Bangladesh, Chile, and Egypt are far less liquid with turnover ratios of 0.06 or less.

Variable	Description
K	Market capitalization or the value of listed shares on the country's exchanges
T/K	The turnover ratio equals the total value of shares traded on a country's stock exchanges divided by stock market capitalization
VT/GDP	Total value of domestic stocks traded on domestic exchanges as a share of GDP. This measures trading relative to the size of the economy.
VT/σ^2	The value traded ratio equals the value traded divided by stock return volatility
T/σ^2	The turnover divided by stock return volatility

Table 2: Stock Market Indicators

Other Indicators

Accounting standards indicator is a rating of the quality of the annual financial reports issued by companies within a country. It measure the ease with which firms can raise external funds, but does not directly measure the actual amount of external funds that are raised.[33]

Use of Measures in Selected Studies

Table 3 summarizes the use of measures discussed above by various authors. The symbols used in the table are as follows:

Y_i^j represents balance sheet variables where *i* is the provider and *j* is the user of capital.

Balance sheet variables are:

A=Domestic Assets, C= Domestic Credit, L=liabilities, cd=currency deposits, dd=demand deposits, LL=cd+dd,

with qualifiers F=Foreign, N=Net, L=liquid.

Providers of capital are one of:

B=b+cb, b=commercial banks, d=deposit money banks, cb=central bank, nb=non-bank, I=b+nb+cb.

Users of capital are one of:

p=private firms, SOE=state-owned enterprises, T=p+SOE.

and i=nominal interest rate.

Indicators → / Selected Papers ↓	LL_I	Ab+nb	NFA	Cl-cbp	Cb/Cb+Acb	Clp	Cdp	1- Cb/C	Cbp-I	n	O^p	K+C/GDP	Liquidity Ratios				ε	R
													VT/GDP	VT/σ^2	T/GDP	T/σ^2		
Jung (1986)	X																	
Demetriades and Hussein (1996)	X																	
Jalilian & Kirkpatrick (2001)	X		X															
Holden and Prokopenko, 2001								X										
Clarke, Xu & Fou (2002), Beck,						X			X									
Demirguc-Kunt & Levine (2004)						X												
Rousseau and Wachtel (1998)		X																
King and Levine, 1993 a,b	X				X	X												
Levine, Lyoza &Beck, 2000	X			X	X	X											X	
BLL	X			X	X													
Levine, 1998							X											
Burgess & Pande										X								
La Porta et al											X							
Levine and Zervos, 1998							X						X		X	X		
Claessens and Laeven 2003																	X	
Rajan and Zingales, 1998													X					X

Table 3: Use of Measures of Financial Sector Development

Measurement Issue

While financial intermediary balance sheet items are measured at the end of the year, GDP is measured over the year. One technique, as used by BLL, is to deflate end-of-year financial balance sheet items by end of year consumer price indices (CPI) and deflate the GDP series by the annual CPI. Then, compute the average of the real financial balance sheet item in year t and t-1 and divide this average by real GDP measured in year t.

Domestic stock market measures are not representative of the liquidity provided to the more developed markets that have access to listing and trading on other exchanges. As a country's financial market become more integrated, this measurement error will increase.

Dependent Variables

Growth-related

1. Average rate of real per capita GDP growth
2. Average rate of growth in the capital stock per person,
3. productivity per capita growth
4. Total productivity growth, which is a "Solow residual" defined as real per capita GDP growth minus (0.3) times the growth rate of the capital stock per person.
5. Stability of output or Income volatility
6. private saving rates

Poverty-related:

Absolute Poverty

7. Income of the poor
8. Headcount of the poor
9. Share of population earning less than a certain amount per day
10. Child labor (which has generally been found to be correlated with poverty)
11. Poverty Gap. This is the minimum aggregate amount, expressed as a percentage of GDP that is required to bring all poor people up to the poverty line.
12. improved supply of, and access to, financial services to the poor

Relative Poverty or Income Distribution

13. The Gini Coefficient is based on the Lorenz curve which plots the share of population against the share of income received. Like any measure, it has its disadvantages, but it is the most common measure used.[34]
14. Theil inequality index[35]
15. growth of the average income of the bottom decile, quintile or quartile
16. the standard deviation of income distribution

Control Variables

1. Per capita income
2. Education
3. Political stability

4. Exchange rate
5. Trade
6. Fiscal policy
7. Monetary policy
8. Quality of property rights protection, although this should really be a measure of FSD.

Instrumental Variables

1. legal origin of countries; countries divided into those with French, German or Scandinavian legal origins
2. absolute value of the latitude of the capital city
3. religious composition of the population

Main Results

Link between Finance and Growth: Financial Development Matters

Summary of findings

A wide range of studies, including those based on firm-level, industry-level and state-level evidence indicate finance causes economic development. For a selected listing of studies on the finance-growth nexus see Appendix Table 1. It lists studies by type, sample, whether or not causality is tested, which instruments are used to test for endogeneity, and the effects of FSD on growth, capital accumulation and productivity. Specific results from the papers are listed below.

The conclusion that pervades is that financial sector development is significantly and robustly correlated with faster current and future rates of economic growth, physical capital accumulation and economic efficiency improvements[36]. This conclusion has emerged from diverse studies using diverse techniques which include, but are not limited to:

- Examining pure correlation between financial development and growth,
- Controlling for other variables,
- Examining the predictive power of financial development on growth,
- Testing for causality and removing the possibility of reverse causality,
- Using instrumental variables to rule out simultaneity bias.

Specific results from these studies are:

1. Financial intermediary size relative to the size of the economy rises as countries develop; true in a broad cross-section of countries, but not in Latin America,
2. A positive long-run relationship between financial development and growth co-exists with a generally negative short-run link.
3. Initial levels of stock market liquidity and of banking development are positively and significantly correlated with future rates of economic growth, capital accumulation (human and physical), and productivity growth.

   Consequently there could potentially be large long-term growth effects from changes in financial development. This result does not state what actually causes the change in financial development.

4. The effect of banking sector development is substantially larger than that of stock market development.
5. Well-functioning banks improve the allocation of capital, and hence economic growth.
6. Public ownership of banks has deleterious effects.
7. It is not listing per se that is important for growth; rather, it is the ability of agents to exchange ownership claims on an economy's productive technologies that is relevant for economic growth. The conclusion follows from the twin results:

   a. The stock market size is not robustly correlated with growth, capital accumulation, and productivity improvements.
   b. But turnover and liquidity are important.
8. Local financial development determines economic performance across the different regions within a country
9. It is possible that the above results could be due to an omitted variable. For example, a positive technology shock could cause a surge of growth as well as financial market development.
10. Studies tend to exclude other components of the financial sector, e.g., bond markets (studied very little) and the financial services provided by non-financial firms.
11. Some studies that find a positive link between finance and growth are not able to rule out a simultaneity bias in the finance-growth relationship. They cannot answer whether financial markets develop in anticipation of future economic activity, or whether finance is a leading indicator rather than a fundamental cause.
12. Other results do indicate that the strong link between financial development and growth is not due to simultaneity bias.
13. A large, positive relationship between economic growth and Private Credit does not appear to be driven by simultaneity bias, omitted country-specific effects, or the routine use of lagged dependent variables in cross-country growth regressions.
14. Finance boosts growth in rich countries primarily by speeding-up productivity growth, while finance encourages growth in poorer countries primarily by accelerating capital accumulation.
15. The impact may be nonlinear. Studies find that countries with very low levels of financial development experience very little growth acceleration from a marginal increase in financial development, while the effect is larger for rich countries and particular large for middle-income countries.
16. The positive impact of financial development on growth diminishes with higher rates of inflation.
17. Financial development influences industrial growth both through the expansion of existing establishments and through the formation of new establishments.
18. Industries that are naturally composed of smaller firms grow faster in countries with more developed markets. In developing markets, small firms face greater informational and contracting barriers to raising funds than large firms. It follows that financial development is particularly important for the growth of industries that, for technological reasons are naturally composed of small firms.
19. Industries that are naturally heavy users of external finance grow faster in countries with more competitive banking systems.
20. Countries with higher levels of financial development both increase investment more in growing industries and decrease investment more in declining industries than financial underdeveloped economies.
21. Financial sector under-development is more likely to hold growth back in developing countries.
22. The longer the period examined, the bigger the impact of FSD on growth, suggesting that the full impact takes time to come through.

23. Over long periods, the impact of growth on FSD becomes insignificant, even in developed countries. The results suggest that, while empirical estimates can overstate the impact of FSD on growth - as at least some of that relationship results from the impact of growth on FSD - in developing countries at least this overestimation is likely to be small, as only a small proportion of the overall impact is caused by growth
24. Legal and regulatory changes that strengthen creditor rights, contract enforcement and accounting practices, boost financial intermediary development with positive repercussions on economic growth.
25. Financial sector under-development is more likely to hold growth back in developing countries. The full impact of FSD takes time to come through, and over long periods, the reverse effect of growth on FSD becomes insignificant
26. Financial sector underdevelopment can be a serious obstacle to growth, even when a country has established other conditions necessary for sustained economic development
27. Educational attainment has no significant impact on growth in countries where FSD is weak.

Connection between Theory and Empirics

Table 4 lists the important theoretical postulates and the studies that test them empirically, with the main results.

Theory	Postulated by:	Effect	Tested by	C/R
Stock market liquidity→ growth	Levine (1991)	+	Levine and Zervos 1998	C
		+	Holmstrom and Tirole (1993)	C
		+	Bencivenga et al. (1995)	C
	Bhide (1993)	-	Bhide (1993)	R
		-	Aghion, Howitt, and Mayer-Foulkes (2005)	C
Turnover→ growth	Beck and Levine (2004)	+	Beck and Levine 2004	C
Bond Market Development → growth	Fink, Haiss, Hristoforova (2003)	+	Fink, Haiss, Hristoforova (2003)	C
Intermediation → growth	Schumpeter (1911)	+	King and Levine (1993a)	C
		+	King and Levine (1993b,c)	C
		+	Levine and Zervos (1998)	C
		+	Beck and Levine and Loayza (2000)	C
		+	Beck and Levine (2004)	C
		+	Rioja and Valev (2004)	C
		+	Rousseau and Wachtel (2002)	
Growth→FSD	Gurley & Shaw (1955) and Jung (1986)	+	Calderon and Liu (2003)	R
FSD↔growth	Lewis1(955)	+	Demetriades & Hussein (1996)	C&R
		+	Odedokun (1996)	C&R
		+	Luintel and Khan (1999)	C
Banks and stock markets are complementary in FSD	Levine and Zervos (1998)	+	Levine and Zervos (1998)	C
Stock market size does not → growth	Levine and Zervos (1998)	0	Levine and Zervos (1998)	C
		+	Beck and Levine (2004)	C
Stage of development' hypothesis*	Patrick (1966)	+	King and Levine (1993), Levine, Loayza and Beck (2000)	C
↓poverty→growth	Jalilian & Kirkpatrick (2001)	+	Jalilian & Kirkpatrick (2001)	R
Low FSD →'poverty trap**	Berthelemy & Varoudakis (1996)	+	Berthelemy & Varoudakis (1996)	C

Table 4: Test of Theories

C=confirms, R=rejects

* FSD leads to growth in the early stages of development, but this impact diminishes gradually as an economy develops, and the impact of growth on FSD begins to predominate after a certain level of development has been reached.

** A vicious cycle can be created because of increasing returns to scale in the financial sector, such that low levels of financial intermediation result in only a few market players. The lack of competition results in high costs, leading to low real deposit rates and hence low savings, which in turn limits the amount of financial intermediation.

Special Topics

Box 1: Case Studies

Country	Type of study	Main conclusion	Implication for FSD	Effect of FSD on	
				Growth	Poverty
Pakistan[1]	14 interviews, 469 hhs, 5 yr period 86-90	+ corr:Marginal rate of saving & variability of Y Percent of Y saved: rental:8.5; remittances:71	FSD→easing remittances→encouraging remittances→>saving	+	-
Brazil Mexico, U.S.[2]	Between 1830 and 1930	Financial development and industrial expansion are related	FSD→better access to K→ industrial expansion	Implied +	
China[3]	Firm level study	Firms have grown despite absence of rules	No FSD→no formal rules governing shareholder rights	No effect	
China [4]	26 provinces	Negative association	FSD does not→growth	-	
Italy[5]	Different regions	Several benefits, particularly for smaller firms	FSD→more entrepreneurship & competition	+	
France[6]	Before and after 1985	Several benefits	FSD→elimination of government intervention in bank lending→greater allocative efficiency	Implied +	
Argentina, Brazil, Chile, Germany, Korea, Indonesia, Taiwan [7]	post World War II period	Diverse set of results	FSD→ Better functioning financial systems →growth	+	
England, Scotland, France, Belgium, Germany, Russia, Japan[8]	1750-1844 1800-1875 1815-1870 1868-1914	Banking development and industrialization related	FSD→banking development→induced growth	+	
U.S.[9]	pooled time-series, cross-section	Growth higher in states with branch reform	FSD→liberalizing branching restrictions	+	
U.S.[10]	"1900-1940	Deposit insurance is beneficial	FSD→insuring deposits	+	
U.S.[11]	1780-1850	Financial arrangements emerged to improve resource	FSD→eased information and transaction costs, monitoring of managers, and risk amelioration	Implied +	

[1] Adams, 2002
[2] Haber,1991 and 1997
[3] Allen, Qian, and Qian (2005)
[4] Boyreau-Debray (2003)
[5] Guiso, Sapienza, and Zingales (2002)
[6] Bertrand, Schoar, and Thesmar (2004)
[7] McKinnon (1973)
[8] Cameron, 1967
[9] Jayaratne and Strahan (1996)
[10] Dehejia and Lleras-Muney (2003)
[11] Wright, 2002

		allocation			

Effect on SMEs

Financial development and corruption reduction have been shown to promote firm growth, particularly the development of the small and medium enterprise sector.[37] The degree to which different financial, legal, and corruption issues constrain a firm's growth depends very much on its size. It is consistently the smallest firms that are most adversely affected by all these constraints.

Micro-foundations

Some evidence shows that financial development aids growth, by reducing financing constraints that would otherwise restrict efficient firm investment. Firm-level data from across countries reveal a strong negative relationship between the extent of financial market development, and the sensitivity of investment, to the availability of internal funds (a proxy for financing constraints).[38]

Firm-level data also show that firms with access to more developed stock markets grow at faster rates than they could have grown without this access.[39]

Link between Finance and Poverty Reduction: Development in Mainstream Finance Matters

A strong mainstream financial system has been shown to be pro-poor, perhaps even more so than microfinance.[40]

Summary of findings

1. Financial depth strongly and significantly contributes to lowering inequality, by encouraging capital flow.
2. It is also associated with lower poverty.
3. It has been found to be a significant explanatory variable affecting headcount and intertemporal changes in poverty.[41]
4. In countries with deep financial systems, national income volatility does not significantly affect child labor.
5. When initial inequality is low, growth reduces poverty nearly twice as much as when inequality is high[42]
6. The flow of foreign resources is mainly directed to those developing economies with more developed financial markets.
7. No strong relationship between MFI penetration and poverty headcount has been found.[43]
8. Evidence from the microfinance arena shows affordable credit does increase economic activity of the poor.[44]

Table 2 in the Appendix additionally lists selected studies and their findings on the finance-poverty nexus.

Connection between Theory and Emperics

Indirect Link through growth

While some authors postulate that financial development is regressive,[45] most have found that growth is neither progressive nor regressive: it is – on average – neutral,[46] so absolute poverty declines with growth. Growth appears to be a necessary, though not always sufficient, condition for sustained poverty reduction. Cross-country analysis has shown that, while there are significant differences in the relationship between growth and poverty reduction across countries, the incomes of the poor tend to rise (and fall) proportionately with average incomes.[47]

Table 5 lists the important theoretical postulates and the studies that test them empirically, with the main results.

	Income inequality and FSD	Tested by	C/R
Greenwood & Jovanovic (1990)	Inverted U [1]	Clarke, Xu & Fou (2002)	R
		Banerjee & Newman (1993)	R
		Galor and Zeira (1993)	R
		Aghion and Bolton (1997)	
		Li, Squire and Zou (1997)	R
Kuznets (1955)	positive	Li, Squire and Zou (1997)	partial
		Dollar & Kraay, 2001	C
		Behrman, Birdsall and Szekely, 2001	C
Beck, Demirguc-Kunt & Levine (2004)	negative	Beck, Demirguc-Kunt & Levine (2004)	C

[1] FSD leads to greater inequality to begin with, which falls back again as FSD continues.

Table 5: Test of Effect of FSD on Inequality

Special Topics

Microfinance:

The roles played by microfinance and mainstream finance in tackling poverty should be regarded as complementary and overlapping rather than as competing alternatives. While mainstream financial depth is measurably associated with lower poverty, however, for microfinance this is not yet so. There is no *fundamental* difference between the business

that banks and MFIs.[48] The essential similarities between the two will become more evident as individual microfinance firms, or associations of firms, grow to the scale needed for sustainability. MFIs that reach a certain scale usually opt for a banking

Box 2: Microfinance

Main Advantages:

1. Reaches the poor
2. Creative methodologies evolved to overcome information problems
    a. Group lending
    b. Progressive increase in the amount lent to an individual or group members as each successive loan is repaid,
    c. Use of non-traditional collaterals, that are likely to be of more value to the borrower than the lender and
    d. High frequency of required repayment installments.

Main pitfalls:

1. Limited supply of resources
2. High transaction costs
3. If not at first, then ultimately turns into a relief agency
4. Extensiveness of coverage is variable and debatable
5. Needs continued donor assistance

Conclusion:

It is a common perception that Microfinance Institutions (MFIs) immensely benefit the poor.[1] While they have come up with creative ways to operate and they do reach the poor, the widespread benefits are questionable. First, the beneficial effects cannot be established empirically. Second, the successful ones seem to resemble mainstream finance in various ways, for example, in scale and composition of assets. Third, the growth of the two forms of finance need not be at odds with each other.

MFIs generally cannot mobilize funds on a large scale and pool risks over very large areas in the way that more traditional, formal financial institutions can. They are probably not a long term tool for growth and poverty reduction, though they could have an important role as an aid mechanism.

Country	MFI Access (mlns)	% of population[2]	Dominance of a few
Bangladesh[3]	**13**	**13.1**	90% access 4 of 1200 instns
West Africa[4]:			
Benin	**0.279**	**1.7**	
Burkina Faso	**0.193**		
Mali	**0.202**	**1.5**	
Togo	**0.132**	**2.4**	
Zambia	**0.010**	**0.1**	95% deposits held by 2 of 14

Table B1: Reach of Microfinance

Source: Individual studies, Daley-Harris, 2003, and Christen et al, 2004 as in Honohan 2004b.

Results of selected studies:

1. MFIs do not in general have a wide access. Only Bangladesh has a double digit penetration rate (borrowing clients as a percent of population) out of 55 reporting countries.
2. Economies of scale must prevail even in this sector, since the few institutions dominate. 75% of all clients are serviced by only 1% of the largest reporting MFIs. In none of the countries is extensive coverage been achieved by a myriad of small institutions. Moreover, size is positively associated with financial viability.
3. Scale tends to promote greater penetration and less vulnerability to economic shocks, owing to the ability to pool risks over a wider region.
4. No strong relationship between MFI penetration and poverty headcount has been found.
5. A high fraction of MFI's below-cost funding is invested in money market instruments rather than lent to clients.
6. MFIs can be riddled with problems of rent-seeking and roundtripping associated with subsidized loan funds.

	Benefits on program participants		Benefits on non- participants		
	Higher Y	**Other**	**Higher Y**	**Spillover effects**	
Bolivia	2/3rd				MkNelly & Dunford 1999
Indonesia	12.9%		3%		Remenyi & Quinones Jr., 2000
Bangladesh 3 programs	5% p.a. out of poverty			21% avg for program villages	Khandker 1998
Many different locations?		<interest rate, wider product mix			Hulme and Mosley 1996

Table B2: Impact Studies

[1] See, for example the recent Blue Book discussions
[2] The appropriate measure for access should be as a % of population and not that of active work force.
[3] Shanghai Conference
[4] Goldstein et al. 1999

Trade credit

Some results imply that trade credit is used as a source of 'financing of last resort' by very constrained firms.[49] Other results imply that trade credit is less accessible to new firms.[50] In any event, lending by financial intermediaries is at least a complement to trade credit.[51]

Role of Public Policy

Why Policy needed

The conclusion of the previous section is that financial sector development is a good thing for growth and for poverty reduction. It follows that this weapon to battle poverty must be used and improved by building an efficient and secure financial environment in which the institutions can flourish and their functions fulfilled. Public policy can play an important role in fostering financial intermediary development and broadening access to financial services.

How specific financial sector policies and programs can be deployed as effective instruments for achieving poverty reduction in low-income countries is a topic for a whole other paper. There is clearly a need to undertake more research in that area.

In this paper we can point to some strategies based on empirical findings of what contributes to FSD. We can also point out the general characteristics of developing markets that has hindered FSD to date. It is hoped that this two-pronged approach might provide guidance in effective policy-making and caution against some pitfalls to avoid in the design of the policy.

Effects of Selected Financial Strategies

In this section we present some of the empirical findings relating to factors that have affected financial development. These findings are a useful reference for policy makers and advisory groups as they draw up their own strategies. Ownership structure, legal and regulatory factors have been found to impact FSD. [52] Some of these are:

Ownership Structure

1. Competition can improve performance but potentially add to vulnerability.[53]
2. a higher degree of state ownership is associated with lower financial sector development[54]
3. a higher degree of state ownership is associated with higher financial sector crisis[55]
4. Entry of foreign banks tends to improve the efficiency and stability of the financial system.[56]
5. foreign banks have a favorable impact on bank spreads[57]
6. Small firms report easier access to finance in systems with larger foreign bank penetration.[58]
7. The microfinance sector does not compete for loanable funds, as it only absorbs a small fraction of them.
8. Excess profitability of mainstream finance, however, can discourage MFIs. [59]

Legal

9. FSD is aided by better protection of property rights of outside financiers.
10. Creditor rights explain variations in banking sector development in common law countries.[60]
11. Legal origin and geographic endowments create an environment for subsequent financial development.[61]
12. Stronger shareholder rights are associated with a greater number of listed firms and with higher stock market capitalization;
13. Stronger creditor rights are associated with a higher level of bank credit and bond finance.[62]

Regulatory

14. Policies that promote bank development, performance and stability are: encouraging market discipline, ensuring information disclosure, and removing government discretion. These policies limit the frequency of systemic banking failures and reduce non-performing loans.[63]
15. Where institutions are weak, deposit insurance has been found to heighten the risk of crises and reduce FSD.
16. Finally, when and under what conditions should financial liberalization occur is a whole other paper. Prudential reforms and macroeconomic stabilisation should, however, precede liberalization measures to pre-empt financial crisis.[64]

Characteristics that have hindered FSD

1. Poor structure and conduct of regulation. Structure includes entry requirements, functional separation of institutions to keep conflict of interests in check, deposit insurance (although in LDCs benefits of DI is ambiguous) lender of last resort facilities. Conduct includes rules regarding prudential behavior and disclosure, loan pricing and interest rate regulations.
2. Lack of technological capacity of formal financial institutions and legal infrastructure to deal with small clients.
3. Pro-debtor regulation: Insufficient creditor protection, not only because of dubious collateral and a sticky judicial system, but a paternalistic State. Many developing countries do not allow poor households to have access to their dwelling or land, so the question of pledging it as security does not arise.[65]
4. Perception of poor supervision and regulation engenders mistrust in these organizations, resulting in lack of loanable deposits.
5. Use of direct instruments of monetary policy: interest rate controls, credit ceilings and directed credits, may have stifled the financial sector, resulting in financial disintermediation and misallocation of financial capital.[66] A good example is the significant share of policy loans in total domestic 'private' credit of SE Asian countries prior to the 1977 crisis.
6. While good policy can generate healthy institutions, and alleviate poverty, bad financial policy has generated inflation, which does have a negative impact on income inequality and poverty.[67]

Policy Design

Policy design has been classified into 3 categories: (1) Financial sector policies, (2) Complementary policies, and (3) Pitfalls to avoid.

Financial Sector Policies

It is of the utmost importance that regulation, supervision and institution building develop in tandem. There is no easy fix, but prudent regulation and supervision have to be combined with appropriate incentives for markets to function effectively. Incentives should be constructive and not stifling for market participants. This always involves walking the fine line between under- and over- liberalizing. Promoting transparency, disclosure and a healthy legal system will allow this to happen.

Countries engaging in FSAPS are clearly demonstrating a will to do this. However it must be emphasized that their assessment of standards cannot stop at the existence of regulation. Supervision is an equally important ingredient in attaining the standards that will engender trust and lead to buoyancy of capital markets.

Regulation must not blindly be tailored after developed country mandates. It should embrace different conditions and take advantage of evolving technology in the design of regulation, e.g. Deposit insurance is not necessarily appropriate for all countries.[68]

Box 3: Policy Design

- Overall: Encourage and mobilize savings to contribute to poverty reduction.
- Promote a dynamic and broad-ranging Intermediary sector
  - Optimization of Entry Requirements
  - Encourage Local Banks.
  - Encourage Foreign Banks.
  - Reduce Dependence on Government Commercial Banks
  - Appropriate Entry Licensing for NBFIs.
- Improve bank supervision and regulation
  - Enforce country-appropriate regulation
  - Include NBFIs in the regulatory framework
  - Reduce Dependence on Safety Nets
- Recognize the importance of a Dynamic Capital Structure
  - Broaden emphasis on credit/lending to improve capital flows.
  - Provide a conducive legal framework for leasing companies to provide short and medium-term asset financing
- Facilitation of Interim Credit Supply
  - Governmental facilitation of credit supply.
  - Innovations in Microfinance Model
  - Use of technology to improve access to finance
  - Allow Alternative Credit Channels to Co-Exist
  - Motivation of microfinance organizations should be moved from charitable to commercial.
- Complementary Policies
  - Improve Practice of Legal Rules
  - Timeliness and Transparency of Information
  - reliance on indirect instruments of monetary policy
- Pitfalls to Avoid

Optimization of Entry Requirements

In most LDCs the financial sector and the ownership of financial institutions needs to be diversified. This goal requires improvements in the competition and efficiency of the financial sector.

Entry Requirements cannot be too liberal such that weak institutions are licensed, and cannot be too restrictive so as to stifle competition that new entrants can pose to existing and usually large institutions.

The Importance of Local Banks

Further new entry by banks and NBFIs should be encouraged but licensing policy should be relatively cautious both to ensure the probity and expertise of new entrants and to avoid supervisory capacities being overwhelmed by the numbers of financial institutions needing supervision. The entry of local private sector banks and NBFIs can widen the range of financial services and access to credit, especially of SMEs, and stimulate more competition, particularly in retail banking markets. But their vulnerability to financial distress means that strong prudential regulation and close supervision is essential, an issue discussed below.

The Importance of Foreign Banks

New entrants should include reputable foreign banks. While they will serve only limited sections of the banking markets, foreign banks can improve services, particularly for

corporate customers. Some of the foreign banks also provide valuable training programmes for bank employees, which is an important externality. Foreign banks have been much less prone to financial distress than either government or locally owned private sector banks in LDCs; hence they provide some stability and credibility to the banking system. However, they are narrowly focused on a group of prime borrowers outside of which they undertake very little lending in LDCs.

Reduce Dependence on Government Commercial Banks

Government commercial banks are commercially non-scalable, since the cost of oversight is very high on such a large scale. With the exception of those in Malawi, none of the distressed government banks in the LDCs has yet demonstrated conclusively that it can be commercially viable on a sustained basis, despite costly and lengthy restructuring programmes. Some of these banks have made progress in cutting costs and recovering loans and may have a viable future if they can build a base of creditworthy borrowers. But little progress has been made in restructuring other government banks. Governments will have to decide either to close these banks down or to sell whatever parts of them are saleable to the private sector. The alternative would be further waste of scarce financial resources and eventually larger costs to government budgets.

The Importance of Non-Bank Financial Institutions as Vested Intermediaries

Even with more new entry from the private sector, a commercially oriented banking system is likely to have a relatively narrow focus. Rural banking and lending to small farmers is unlikely to be commercially viable because of the high administrative and information costs involved and the difficulties in enforcing loan repayment. Commercial banks rarely have the expertise needed for lending to small farmers, their lending procedures (e.g., the focus on realisable collateral) are not suitable and some do not have a rural branch network. The banking system is also unlikely to provide long term finance, especially in the unstable macroeconomic conditions prevailing in the LDCs.

Consequently it will be necessary to encourage the growth of different types of NBFIs to serve the segments of financial markets which are unattractive to the commercial banks. Leasing companies provide a potentially useful vehicle for short to medium term asset financing for SMEs. Leasing should be commercially viable (it is already occurring on a significant scale in Zambia, and to a lesser extent in Malawi), but the legal framework needs to be conducive to leasing and it is also essential to ensure that leasing companies are subject to prudential regulation and supervision if they are to mobilise funds from the market.

Improve Supervision and Regulation

It is of the utmost importance that regulation, supervision and institution building develop in tandem. There is no easy fix, but prudent regulation and supervision have to be combined with appropriate incentives for markets to function effectively. Incentives should be constructive and not stifling for market participants. This always involves walking the fine line between under- and over- liberalizing.

Countries engaging in FSAPS are clearly demonstrating a will to develop a healthy financial system. It must be emphasized, however, that their assessment of standards cannot stop at the existence of regulation. Enforcement is an equally important ingredient in attaining the standards that will engender trust and lead to buoyancy of markets.

Regulation must not blindly be tailored after developed country mandates. It should embrace different conditions and take advantage of evolving technology in the design of regulation, e.g. Deposit insurance is not necessarily appropriate for all countries.

It will be important to extend supervision to NBFIs, especially deposit taking NBFIs. In controlled financial markets fragility mainly arose from government directed lending to unbankable borrowers. This source of fragility has been reduced, if not eliminated, by reforms in the past few decades. But new sources of financial fragility have already arisen in liberalised markets, in particular from new entry by private sector banks and NBFIs, and greater competition for funds and borrowers. Liberalised interest rates and foreign exchange markets will expose banks and NBFIs to new sources of risk, of which they have little experience of coping with.

Competition may eventually cut interest rate spreads and other forms of income, such as commissions on foreign exchange dealing, which have to some extent been able to protect banks from losses incurred in their loan portfolios. Some of the new entrants will lack adequate resources and experience of the markets they intend to serve, and some are likely to engage in fraud.

Close supervision, particularly of lending policies and of recent entrants, is needed to detect problems at an early stage. Central banks should intervene promptly in distressed banks and NBFIs, and sanction infractions of prudential regulations, both to limit the scale of losses in distressed banks and to strengthen incentives for prudent bank management. Central banks need operational independence from politicians if regulation and supervision are to be effective.

Reduce Dependence on Safety Nets

Deposit insurance does allow new entrants without a reputation for prudent management to more easily mobilise deposits from the public, but it has its own risks. With greater transparency and disclosure, market monitoring can replace traditional safety nets liked deposit insurance.

Facilitation of Credit Supply

Market failures are pervasive in rural financial markets. Some form of government intervention could be designed to facilitate credit supply to small farmers to improve social welfare, although this would not necessarily be through existing intermediaries. The key to developing rural financial markets is to find the institutional arrangements, which can best overcome the specific types of market failures afflicting these markets.[69]

Innovations to the Microfinance Model

The type of innovative microfinance organisations whose lending technologies (such as group lending and intensive loan administration) are designed to cope with the problems entailed in lending to small scale borrowers without collateral may provide a viable interim means of serving parts of the rural financial markets. These organisations could improve the range of services they offer the poor by placing greater emphasis on the provision of savings facilities. They may also help offset some of the negative impact on savings facilities of the closure of unprofitable rural branches by the government and private sector banks. They are, however, likely to need some form of public subsidy to cover the very high administrative costs involved, making them unsustainable in the long run.[70]

Allow Alternative Credit Channels to Co-Exist

Microfinance and trade credit should not be viewed as substitutes, but rather as complements of mainstream finance. Regulatory policy should be designed to ensure that entry into MF remains easy, and that the mainstream sector is not over-protected and unduly profitable.

To the extent that more resources are allocated to developing MFIs, either by donors or by policy makers, it is better to increase their scale rather than their number.

Complementary Policies

Promoting transparency, disclosure, accounting and a healthy legal system will complement institution building. Information, accounting and legal infrastructures have to be developed concomitantly.

Information needs to be timely and accurate to reduce information asymmetry between users and providers of funds. This is partly done with FSD since monitoring improves. Government policy should require disclosure, but also promote the use of technology to improve analysis of and access to information. This would lower information costs and riskiness of lending, and improve credit availability. Improvement in *accounting* would allow better credit assessment and allocation by providing the true picture of the financial condition of the borrower.

Legal structures determine the scale and the efficiency of finance. Inter-temporal contracts underlie each of the FSD functions and need to be actively supported by a legal and judicial system. Contract enforcement capability is of the utmost importance.

Sound macroeconomic, monetary and fiscal policies designed to attain low and sustainable rates of inflation would enhance financial intermediation through stable and sustainable real positive interest rates. In a volatile environment, informational asymmetries also worsen, and may not be detected in a timely fashion. Macroeconomic stability appears to be a necessary but not sufficient condition, as financial markets have not yet responded to the reforms in many countries where inflation has been reduced.

Reliance on Indirect Instruments of Monetary Policy

Move towards greater reliance on indirect instruments of monetary policy: open market operations, standing facilities, reserve requirements, and phase out direct methods of controlling credit via price or quantity requirements.

Pitfalls to Avoid

Directed credit and credit ceilings: By not allowing credit to flow to its most productive uses, growth is compromised. By using the 'one tool for one objective' rule, governments could use straight aid to achieve the direction of credit desired. Improving disclosure and legal and judicial structures would typically avoid the pitfalls that credit ceilings are set up to do.

Debtor-biased regulation: By protecting the would-be user, the provider of funds is compromised and provides incentives to withhold funds.

Conclusions

As supply-driven credit has shrunk, from the State and donor agencies, a replacement strategy to develop financial markets has not emerged in the core of most poverty alleviation programs. This paper documents the recent findings on the overwhelmingly pro-poor nature of financial markets. Once these findings are broadly disseminated among policy makers and donor agencies, financial markets are bound to become a key pillar in development strategies.

1 www.developmentgoals.org, Atkinson (2004) for a listing of MDGs and means to achieve them.

2 Levine (2004).

3 Levine (1997), Merton and Bodie (2000), Matin, Hulme and Rutherford, (1999).

4 Greenwood and Smith (1996), Adam Smith as per Wright (2002), p. 212-216.

5 Mavrotos and Kelly (1999).

6 Sirri and Tufano (1995).

7 Romer (1989) and Lucas (1988).

8 Wider (2003) and Pagnano (1993).

9 Bencivenga and Smith (1991, 1993).

10 Levine (1997).

11 Galor and Zeira (1993).

12 La Porta et al. (1999), Morck et al. (2000) Claessens et al, (2002), Caprio et al. (2003).

13 Morck et al (2005).

14 Diamond (1984), Townsend (1979), Gale and Hellwig (1985), Boyd and Smith (1994), Aghion, Dewatripont, and Rey (1999).

15 Jensen and Meckling (1976), Diamond and Verrecchia (1982), Jensen and Murphy (1990), Scharfstein, (1988), Stein (1988).

16 Gurley and Shaw (1955), Patrick (1966), Greenwood and Jovanovic (1990), Saint-Paul (1992) Devereux and Smith, 1994; Obstfeld (1994), Acemoglu and Zilibotti (1997), King and Levine (1993b).

17 Allen and Gale, (1997), Krebs, (2003).

18 Hess, (2003).

19 Diamond and Dybvig (1983), Bencivenga, Smith, and Starr, (1995).

20 Bagehot (1873), Cameron (1967).

21 Robinson (1952), Lucas (1988).

22 Levine and Renelt (1992).

23 King and Levine (1993), and e.g. Demirguc-Kunt and Maksimovic (1996).

24 Rajan and Zingales (1998).

25 Bekaert et al (2000).

26 Rousseau and Wachtel (1998).

27 Kuznets (1955), Holden and Prokopenko (2001).

28 World Bank (2003).

29 Ledgerwood (1998), Matin, Hulme and Rutherford (1999).

30 Morduch (1998).

31 Morduch (1998), Coleman (1999).

32 Lardy (1997).

33 Rajan and Zingales (1998).

34 Deininger and Squire (1996).

35 Galbraith and Lu (2000).

36 Levine (2004).

37Beck, Demirguc-Kunt, and Maksimovic (2002).

38 Love (2001).

39 Demirguc-Kunt and Masimovic (1996b).

40 Honohan (2004a).

41 Honohan (2004b), Beck et al (2004).

42 World Bank (2001a).

43 Honohan (2004 b).

44 Winters (2004).

45 Behrman, Birdsall and Szekely (2001), Dollar and Kraay (2001).

46 Dollar and Kraay (2002).

47 Eastwood and Lipton (2001).

48 Robinson (2001).

49 Petersen and Rajan (1997).

50 Fisman and Love (2003).

51Demirguc-Kunt and Maksimovic (2001a).

52 Honohan (2004 b).

53 World Bank Conference (2003a).

54 La Porta et al (2002).

55 Barth et al (2003).

56 Clarke et al. (2002), Seth (1993).

57 Levine (2002).

58Clarke et al. (2001).

59 Honohan (2004 a).

60 Ergungor (2002).

61 Beck, Demirgûç-Kunt and Levine (2003).

62 La Porta et al. (1998).

63 Barth, et al (2004).

64 Alawode and Ikhide (1997).

65 De Soto (2000).

66 McKinnon (1973).

67 Bulir and Gulde, 1995, and Sarel, 1997.

68 World Bank (2001b).

69 Besley (1994).

70 Hulme and Mosley (1996).

Author	Type of study	Sample Size	Controls	predictive	Causality tested	FSD Effect	FSD proxy	Effect of increase in Intermediation			Use of IV	Sec mkt dev
								growth	productivity	K accum		
Goldsmith 1969	Pure correlation	35	X		X	+	1	✓	X	X		
Guiso, Sapienza, and Zingales (2002),	Single country, different regions					+		✓				
KL '93a	Cross-country growth Regression	77	✓	✓	X	+	3	✓	✓	✓		
KL '93b,c	Alternative methods	80	✓	✓		+		✓	✓	✓		
La Porta et al 2002	CCGR					+	1	✓	✓		✓	
LZ 1998 a	CCGR with stock markets	42	✓	✓	X	+	4	✓	✓	✓		C
Favara 2003			X			+		weak				
Claessens and Laeven 2003			✓			-						
Fink, Haiss, and Hristoforova (2003)	Panel	13			✓	+	Bond mkt devlt	✓				
Lev,Loayza Beck 2000	Panel GMM	71	✓		✓	+	Sev	+	+	not robust on K or s	✓	
Beck, Levine, and Loayza 2000	'		✓		✓	+	Sev	+	+			

References

Adams, Richard. Precautionary Savings from Different Sources of Income: Evidence from Rural Pakistan. WP2761. 2002

Acemoglu, D., P. Aghion, and F. Zilibotti (2003), "Distance to Frontier, Selection, and Economic Growth:, National Bureau of Economic Growth, Working Paper No. 9066.

Aghion, P. and P. Bolton (1997). "A Trickle-Down Theory of Growth and development with Debt Overhang", Review of Economic Studies 64, 151-72.

Aghion, P., M. Dewatripont, and P. Rey (1999), "Competition, Financial Discipline and Growth", Review of Economic Studies, 66: 825-852.

Aghion, P., Howitt, and D. Mayer-Foulkes (2005), "The Effect of Financial Development on Convergence: Theory and Evidence", Quarterly Journal of Economics, forthcoming.

Alawode A. and Sylvanus I. Ikhide (1997), "Why Should Financial Liberalisation Induce Financial Crisis", *Savings and Development* No 3, pp261-273.

Allen, F. and D. Gale (1997), "Financial Markets, Intermediaries, and Intertemporal Smoothing", Journal of Political Economy, 105: 523-546.

Allen, F., J. Qian, and M. Qian (2005). "Law, Finance, and Economic Growth in China", Journal of Financial Economics, forthcoming.

Arestis, P. and P. Demetriades,'Financial development and economic growth: assessing the evidence', *Economic Journal*, vol.107 (1997), 783-799

Atkinson, A. B., September 2004, Policy Brief No. 10 **New Sources of Development Finance: Funding the Millennium Development Goals** (PDF 319KB) ISBN 92-9190-650-6.

Bagehot, Walter; 1873, Lombard Street. Homewood IL: Richard D Irwin, 1962 edition

Barth, James R. Gerard Caprio, Jr. and Ross Levine, 2004. "Bank Regulation and Supervision: What Works Best," *Journal of Financial Intermediation,* April.

Banerjee, A. and A. Newman (1993). "Occupational Choice and the Process of Development", Journal of Political Economy 101, 274-98.

Beck, T. and R. Levine (2004), "Stock Markets, Banks and Growth: Panel Evidence", Journal of Banking and Finance, 423-442.

Beck, Thorsten, Aslı Demirgűç-Kunt and Ross Levine. 2004. "Finance and Poverty: Cross-Country Evidence." World Bank Policy Research Working paper 3338.

http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2004/07/23/000112742_20040723123757/Rendered/INDEX/wps3338.txt

Beck, Thorsten, Asli Demirgüç-Kunt and Ross Levine, 2003, "Law, Endowments and Finance", forthcoming, *Journal of Financial Economics*.

Beck, Thorsten; Demirguc-Kunt, Asli; Maksimovic, Vojislav; Financial and legal constraints to firm growth - Does size matter? (Vol.1), Policy, Research working paper; no. WPS 2784, 2/2002.

Beck, T., R. Levine and N. Loayza, (2000). "Finance and the Sources of Growth", Journal of Financial Economics, 58: 261–300.

Beegle, Dehejia and Gatti. (2003). "Child Labor, Income Shocks and Access to Credit", World Bank mimeo.

Behrman, Birdsall and Szekely; 2001, "Economic Reform and Wage Differentials in Latin America", IADB mimeo.

Bekaert G., C. Harvey, and C. Lundblad, (2000). "Emerging Equity Markets and Economic Development," NBER working paper 7763.

Bencivenga, V. R., B. D. Smith and R. M. Starr, (1995). "Transactions Costs, Technological Choice, and Endogenous Growth", Journal of Economic Theory, 67: 53-177.

Bencivenga, V. R. and B. D. Smith, (1993). 'Some Consequences of Credit Rationing in an Endogenous Growth Model'. *Journal of Economic Dynamics and Control* 17: 97–122.

Bencivenga, V. R. and B. D. Smith (1991). 'Financial Intermediation and Endogenous Growth'. *The Review of Economic Studies* 58: 195–209 (April).

Berthelemy and Varoudakis, (1996). "Economic Growth, Convergence Clubs and the Role of Financial Development", Oxford Economic Papers, 48(2) pp.300-28.

Bertrand, M., A.S. Schoar, and D. Thesmar (2004), "Banking Deregulation and Industry Structure: Evidence from the French Banking Reforms of 1985", Centre for Economic Policy Research, Discussion Paper No. 4488.

Besley, Timothy and Case, Anne, 2000. "**Unnatural Experiments? Estimating the Incidence of Endogenous Policies**," Economic Journal, Royal Economic Society, vol. 110(467), pages F672-94.

Bhide, A. (1993), "The Hidden Costs of Stock Market Liquidity", Journal of Financial Economics, 34: 1-51.

Boyreau-Debray, Genevieve, 2003. “Financial Intermediation and Growth: Chinese Style”, World Bank Policy Research Working Paper 3027.

Boyd, J. H. and B. D. Smith (1994), "How Good Are Standard Debt Contracts? Stochastic Versus Nonstochastic Monitoring in a Costly State Verification Environment”, Journal of Business, 67: 539-562.

Brownbridge, Martin and Samuel K Gayi**,** Progress, Constraints and Limitations of Financial Sector Reforms in the Least Developed Countries, DFID, Working Paper 7.

Bulir, Ales and Anne-Marie Guklde, 1995. Inflation and Income Distribution - Further Evidence on Empirical Links, IMF Working Paper No. 95/86.

Burgess and Pande, (2003). “Do Rural Banks Matter? Evidence from the Indian Social Banking Experiment”, typescript, LSE and Columbia University.

Cameron, R. et al. "Banking in the Early Stages of Industrialization: A study in Comparative Economic History," New York: Oxford U. Press, 1967.

Calderon and Liu, (2003). “The Direction of Causality Between Financial Development and Economic Growth”, Journal of Development Economics, 72(1), pp.321-334.

Caprio Jr., G., L. Laeven, and R. Levine (2003), “Governance and Bank Valuation”, National Bureau of Economic Research Working Paper, No. 10158.

Claessens, S. and L. Laeven (2003), “Financial Development, Property Rights, and Growth”, Journal of Finance, 58: 2401-36.

Claessens, S.; S. Djankov, J. Fan, L. Lang (2002), “Disentangling the Incentive and Entrenchment Effects of Large Shareholdings”, Journal of Finance, 57: 2741-2771.

Clarke, George, Robert Cull, Maria Soledad Martinez Peria, and Susana M. Sánchez. 2002. “Bank Lending to Small Businesses in Latin America: Does Bank Origin Matter?” World Bank Policy Research Working Paper 2760, January 2002.

Clarke, George, Robert Cull and Maria Soledad Martinez Peria, 2001, “Does Foreign Bank Penetration Reduce Access to Credit in Developing Countries? Evidence from Asking Borrowers” World Bank Policy Research Working Paper 2716.

Clarke, George; Lixin Colin Xu and Heng-fu Zou (2003): Finance and Income Inequality, Test of Alternative Theories, World Bank Policy Research Working Paper, #2984.
Finance and income inequality : test of alternative theories Vol. 1 (English)

Coleman; 1999, “The Impact of Group Lending in Northeast Thailand”, Journal of Development Economics, 60, pp.105-141

Dehejia and Gatti, (2002). " Child Labor: The Role of Income Variability and Access to Credit in a Cross Section of Countries", World Bank mimeo.

Demirguc-Kunt, Asli; Maksimovic, Vojislav, 1996a. Firms as financial intermediaries - evidence from trade credit data (Vol.1), Policy, Research working paper ; no. WPS 2696.

Demirguc-Kunt, Asl1; Maksimovic, Vojislav, 1996b. Institutions, financial markets, and firms' choice of debt maturity (Vol.1), Policy, Research working paper ; no. WPS 1686.

Demetriades, P. and K. Hussein (1996), "Does Financial Development Cause Economic Growth? Time Series Evidence from 16 Countries", Journal of Development Economics, 51: 387-411.

DFID, 2004. [PDF] The Importance of **Financial** Sector Development for **Growth** and **...** Poverty Reduction, Policy Division Working Paper.

Deininger and Squire, 1996. The World Bank economic review 12(3) Vol. 1.

De Soto, Hernando. 2000. *The Mystery of Capital:Why Capitalism Triumphs in the West and Fails Everywhere Else.* New York: Basic Books.

Devereux, M. B., and G. W. Smith (1994), "International Risk Sharing and Economic Growth", International Economic Review, 35: 535-550.

Diamond, D. W. and R. E. Verrecchia (1982), "Optimal Managerial Contracts and Equilibrium Security Prices", Journal of Finance, 37: 275-287.

Diamond, D. W. (1984), "Financial Intermediation and Delegated Monitoring", Review of Economic Studies, 51: 393-414.

Diamond, D. W. and P. H. Dybvig (1983), "Bank Runs, Deposit Insurance, and Liquidity", Journal of Political Economy, 91: 401-419.

Dollar, David, and Aart Kray. 2002. *Growth Is Good for the Poor.* Washington, D.C.: World Bank.

Dollar, David and Kray, Aart, 2001. Trade, growth, and poverty. World Bank Working Paper 2615

Eastwood and Lipton, (2001). "Pro-Poor Growth and Pro-Growth Poverty Reduction: Meaning, Evidence and Policy Implications", Asian Development Review (19)

Ergungor, O.E. (2004). "Market- vs. Bank-Based Financial Systems: Do Rights and Regulations Really Matter?", Journal of Banking and Finance, forthcoming.

Favara, (2003). "An Empirical Reassessment of the Relationship Between Finance and Growth", IMF Working Paper, wp/03/123.

Fink, G., P. Haiss, and S. Hristoforova (2003). “Bond Markets and Economic Growth”, Research Institute for European Affairs, Working Paper 49, April.

Fisman, Raymond, Inessa Love (2004). “**Financial Development and Growth in the Short- and Long-Run**,” NBER WP 10236. 13.

Fisman, Raymond, Inessa Love (2003) “**Trade Credit, Financial Intermediary Development, and Industry Growth**” Journal of Finance.

Galbraith, J. K and Lu Jiaqing (2000). “Inequality and financial crisis: some early findings”, UTIP Working Paper No. 9.

Gale, D. and M. Hellwig (1985), "Incentive-Compatible Debt Contracts: The One-Period Problem”, Review of Economics Studies, 52: 647-663.

Galor, O. and J. Zeira (1993), "Income Distribution and Macroeconomics", Review of Economic Studies, 60: 35-52

Goldstein, Gilles, Barro, Issa and Gentil, Dominique, 1999. The Role and Impact of Savings Mobilization in West Africa,: a Study of the Informal and Intermediary Financial Sectors. March 1999.

Greenwood, J. and B. Jovanovic (1990), "Financial Development, Growth, and the Distribution of Income”, Journal of Political Economy, 98: 1076-1107.

Greenwood, J. and B. Smith (1996), "Financial Markets in Development, and the Development of Financial Markets”, Journal of Economic Dynamics and Control, 21: 145-181.

Guiso, L., P. Sapienza and L. Zingales (2002), “Does Local Financial Development Matter?”, National Bureau of Economic Research Working Paper No. 8922.

Gurley, J. G. and E. S. Shaw (1955), "Financial Aspects of Economic Development”, American Economic Review, 45: 515-538.

Haber, S. H. (1991), "Industrial Concentration and the Capital Markets: A Comparative Study of Brazil, Mexico, and the United States, 1830-1930”, Journal of Economic History, 51: 559-580.

Haber, S. H. (1997), “Financial Markets and Industrial Development: A Comparative Study of Governmental Regulation, Financial Innovation and Industrial Structure in Brazil and Mexico, 1840-1940”, In: How Latin America Fell Behind?, Ed: S. Haber, Stanford, CA: Stanford University Press: 146-178.

Hess Ulrich, 2003. Innovative financial services for India : monsoon-indexed lending and insurance for smallholders Vol. 1 of 1 (English)

Holden, Paul and Vassili Prokopenko. Financial Development and Poverty Alleviation: Issues and Policy Implications for Developing and Transition Countries. IMF WP/01/160.

Holmstrom, B. and J. Tirole (1993), "Market Liquidity and Performance Monitoring", Journal of Political Economy, 101: 678-709.

Honohan, P; 2004a, "Financial Development, Growth and Poverty: How Close are the Links", in "Financial Development and Economic Growth: Explaining the Links", Ed. Charles Goodhart. London: Palgrave, forthcoming.

Honohan, Patrick, 2004 b. Financial sector policy and the poor: selected findings and issues , World Bank working paper series ; no. 43, September.

Hulme, David and Mosley, Paul(1996), *Finance against poverty*, 2 vols. London: Routledge.

Jalilian, H and Kirkpatrick, C; 2001. " Financial Development and Poverty Reduction in Developing Countries", Working Paper 30, IDPM, Manchester University.

Jacoby, H., (1994). "Borrowing Constraints and Progress Through School: Evidence From Peru", Review of Economics and Statistics, 76, pp. 151-60

Jayaratne, J. and P. E. Strahan (1996), "The Finance-Growth Nexus: Evidence from Bank Branch Deregulation", Quarterly Journal of Economics, 111: 639-670.

Jensen, M. and K. Murphy (1990), "Performance Pay and Top Management Incentives", Journal of Political Economy, 98: 225-263.

Jensen, M. and W. R. Meckling (1976), "Theory of the Firm, Managerial Behavior, Agency Costs and Ownership Structure", Journal of Financial Economics, 3: 305-360.

Jung, W; 1986, "Financial Development and Economic Growth: International Evidence", Economic Development and Cultural Change, 34(2), pp.333-346.

Khandker, Shahidur R; 1998, " Fighting Poverty with Microcredit: Experience in Bangladesh",New York, NY: Oxford University Press for the World Bank

King, R.G., and R. Levine, "Finance and Growth: Schumpeter Might be Right," Quarterly Journal of Economics, 1993 108(3), pp. 717-37.

King, R. G. and R. Levine (1993b), "Finance, Entrepreneurship, and Growth: Theory and Evidence", Journal of Monetary Economics, 32: 513-542.

King and Levine; 1993a, “Financial Intermediation and Economic Development”, in “ Financial Intermediation in the Construction of Europe”, Eds. Colin Mayer and Xavier Vives. London: Centre for Economic Policy Research, pp.156-89

King and Levine; 1993b, “Finance and Growth: Schumpeter Might be Right”, Quarterly Journal of Economics, 108(3), pp.717-37

King and Levine; 1993c, “Finance, Entrepreneurship and Growth: Theory and Evidence”, Journal of Monetary Economics, 32(3), pp.513-42

Krebs, T. (2003), “Human Capital Risk and Economic Growth”, Quarterly Journal of Economics, 118: 709-44.

Kuznets; 1955, “Economic Growth and Income Inequality”, American Economic Review, 45(1), pp.1-28

La Porta, Rafael, Florencio López-de-Silanes, and Andrei Shleifer, 2002. “Government Ownership of Commercial Banks” *Journal of Finance* 57(1), 265-301.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer, and R. Vishny (1999), “Corporate Ownership Around the World,” Journal of Finance, 54: 471-517.

Lardy, Nicholas, 1997. China ' s non-bank financial institutions : trust and investment companies Vol. 1

Ledgerwood, Joanna, 1998. Microfinance handbook : an institutional and financial perspective Vol. 1 (English)

Li, Hongyi, Lyn Squire and Heng-fu Zou (1998). “Explaining International and Intertemporal Varriations in Income Inequality”, *Economic Journal*, 108(1): 26-43.

Levine, Ross, (2004). Finance and Growth: Theory and Evidence, NBER Working Paper No. 10766, September 2004.

Levine, Ross, (2002). “Denying Foreign Bank Entry: Implications for Bank Interest Margins”, Presented at Central Bank of Chile Conference, Santiago, December 2002. (http://www.bcentral.cl/eng/studiesandpublications/conferences/annual/pdf/ross_levine.pdf).

Levine, R. (1997), “Financial Development and Economic Growth: Views and Agenda”, Journal of Economic Literature, 35: 688-726.

Levine, R. (1991), "Stock Markets, Growth, and Tax Policy”, Journal of Finance, 46: 1445-1465.

Levine, R., N. Loayza and T. Beck (2000), “Financial Intermediation and Growth: Causality and Causes”, Journal of Monetary Economics, 46: 31-77.

Levine, R. and D. Renelt (1992), "A Sensitivity Analysis of Cross-Country Growth

Regressions", American Economic Review, 82: 942-963.

Levine, R. and S. Zervos (1998), "Stock Markets, Banks, and Economic Growth", American Economic Review, 88: 537-558.

Lewis, W A (1955) *The Theory of Economic Growth*, Allen and Unwin, London.

Love, Inessa, 2001. Financial development and financing constraints - international evidence from the structural investment model (Vol.1), Policy, Research working paper ; no. WPS 2694,

Luintel, R B and Khan, M (1999) 'A Quantitative Reassessment of the Finance-Growth Nexus: Evidence from a Multivariate VAR', *Journal of Development Economics* 60, pp381-405

Lucas, 1988, Stiglitz and Weiss, 1981, Bernanke (1983), Diamond , 1984, Fama (1985) and also Akerlof, 1970

Matin, Hulme and Rutherford, "Financial Services for the Poor and Poorest: Deepening Understanding to Improve Provision," Working Paper Series, Institute for Development Policy and Management, University of Manchester, Paper No. 9, October 1999.

Mavrotos and Kelly, FINANCIAL SECTOR DEVELOPMENT AND SAVINGS MOBILISATION: AN ASSESSMENT, DFID, Working Paper 10, November 1999. Word format

McKinnon (1973). " Money and Capital in Economic Development", Washington DC: Brookings Institution.

Merton, R. C. and Z. Bodie (2004), "The Design of Financial Systems: Towards a Synthesis of Function and Structure", National Bureau of Economic Research Working Paper Number 10620.

MkNelly and Dunford. (1999). "Impact of Credit with Education on Mothers and their Young Children's Nutrition: CRECER Credit with Education Program in Bolivia", Freedom from Hunger Research Paper No. 5, Davis, Calif.

Morck, R., D. Wolfenzon, and B. Yeung (2005), "Corporate Governance, Economic Entrenchment and Growth," Journal of Economic Literature, forthcoming.

Morck, R., D. Stangeland, and B. Yeung (2000), "Inherited Wealth, Corporate Control, and Economic Growth: The Canadian Disease," in Concentrated Corporate Ownership. Ed: Randall Morck. National Bureau of Economics Research.

Morduch; 1998, "Does Microfinance Really Help the Poor? New Evidence on Flagship Programs in Bangladesh", presented at Stanford, UC-Berkeley, University of Washington.

Obstfeld, M. 1994. "Risk-Taking, Global Diversification, and Growth", American Economic Review, 84: 1310-1329.

Odedokun; 1996, "Alternative Econometric Approaches for Analyzing the Role of the Financial Sector in Economic growth: Time Series Evidence from LDCs", Journal of Development Economics, 1996, 50 (1), 119-46.

Pagano, M. 1993. 'Financial Markets and Growth'. *European Economic Review* 37: 613–622.

Patrick, H. 1966. "Financial Development and Economic Growth in Underdeveloped Countries", Economic Development Cultural Change, 14: 174-189.

Petersen, M. A. and R. G. Rajan ,1997. "Trade Credit: Some Theories and Evidence", Review of Financial Studies, 10: 661-692.

Rai, Anoop, Seth, Rama and Mohanty, Sunil, 2005. "The Lending Behavior of Foreign Banks during Recessions." Financial Markets, Institutions, and Instruments, forthcoming.

Rajan, R., and L. Zingales, 1998. "Financial Dependence and Growth," American Economic Review, 88(3), pp. 559-86.

Remenyi and Quinones Jr. eds., (2000). " Microfinance and Poverty Alleviation: Case Studies from Asia and the Pacific" New York: Pinter Publishers Ltd. 79, 131-34; 253-64.

Rioja, F. and N. Valev, (2004). "Does One Size Fit All?: A Reexamination of the Finance and Growth Relationship", Journal of Development Economics, forthcoming.

Robinson, Marguerite S. 2001. *The Microfinance Revolution*. Washington DC: The World Bank.

Robinson, J. (1952), "The Generalization of the General Theory", In: the Rate of Interest and Other Essays, London: MacMillan.

Romer, P. 1989. 'Capital Accumulation in the Theory of Long Run Growth', in R. Barro (ed.) *Modern Business Cycle Theory.* Harvard University Press: Cambridge, MA.

Rousseau, P. and P. Wachtel, "Financial Intermediation and Economic Performance: Historical Evidence from Five Industrialized Countries," Journal of Money Credit and Banking 30(4), November 1998 pp. 657-78.

Saint-Paul, G. (1992),"Technological Choice, Financial Markets and Economic Development", European Economic Review, 36: 763-781.

Sarel, Michael, 1997. Growth and Productivity in ASEAN Countries , IMF Working Paper No. 97/96.

Scharfstein, D. (1988), "The Disciplinary Role of Takeovers", Review of Economic Studies, 55: 185-199.

Schumpeter, J A (1911) *The Theory of Economic Development*, Harvard University Press, Cambridge MA

Sirri, E. R. and P. Tufano (1995),"The Economics of Pooling", In: The Global Financial System: A Functional Approach, Eds: D. B. Crane, et al., Boston, MA: Harvard Business School Press: 81-128.

Stein, J. C. (1988), "Takeover Threats and Managerial Myopia", Journal of Political Economy, 96: 61-80.

Townsend, R. M. (1979), "Optimal Contracts and Competitive Markets with Costly State Verification", Journal of Economic Theory, 21: 265-293.

WIDER, Samuel Munzele Maimbo and George Mavrotas, 2003. **Financial Sector Reforms and Savings Mobilization in Zambia** (PDF 242KB)
http://www.unu.edu/hq/library/Collection/PDF_files/WIDER/WIDERdp2003.13.pdf

Winters, Alan, October 2004.
http://www.wto.org/english/news_e/pres00_e/pov3_e.pdf

World Bank mimeo, Bangladesh: Growth, Achievements, and Lessons in Microfinance. Shanghai Conference; pp. 1-3

World Bank, 2003 a,
http://www.worldbank.org/research/interest/confs/bank_concentration.htm.

World Bank, 2003 b, Reaching the Rural Poor: A Renewed Strategy for Rural Development by Csaba Csaki.

World Bank, 2001a, *World Development Report 2000/2001*, Oxford University Press, New York

World Bank, 2001b. *Finance and Growth: Policy Choices in a Volatile World*, New York: Oxford University Press.

Wright, R.E. (2002), The Wealth of Nations Rediscovered: Integration and Expansion in American Financial Markets, 1780-1850, Cambridge, UK: Cambridge University Press.