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## **I. FUNDAMENTAL FUNCTIONS OF THE FINANCIAL SYSTEM AND REGULATION**

### **A. Introduction**

The operation of the financial system serves a host of very important economic functions. On the one hand, savers deposit their surplus money with banks. On the other hand, private and public actors can finance, by means of bank loans, their consumption and investment needs. For this reason the sound and safe operation of the banking system is of strategic importance not only in fostering economic development but also in ensuring social and economic stability. First, if savers are confident of the safety and sound operation of the formal banking sector they will avoid channelling their savings to the informal banking sector, which is highly inefficient and is sometimes operated by criminal syndicates. Secondly, the sound and safe operation of a competitive banking system ensures to interested firms access to bank finance at reasonable market based interest rates, allowing them to implement their investment plans that are dependent on such financing and avoid over-borrowing.

Any body of rules that is striving to create and preserve a sound and safe banking system must address four concerns:

1. ensure the efficient and effective operation of banks, since due to the *principal/agent* problem savers do not know the true quality of the management that operates the bank with which they have trusted their savings
2. ensure that banks have adequate financial resources to either avoid a *failure* or properly compensate their depositors and other creditors

3. devise a public system of regulations and supervisory techniques which ensure that in the event of a bank failure any depositors' run is effectively averted/contained and does not lead to a systemic crisis and the collapse of the banking system due to *contagion*
4. ensure that the financial system is not used to facilitate *criminal activities* and especially to legalize the proceeds of crime (money laundering).

Through the involvement of a number of formal and informal international bodies such as the IMF, the EU, and the Basel Committee on Banking Supervision, a modern system of banking regulation has been devised addressing most of the above concerns in an effective manner and on the basis of a wide international consensus. This body of banking regulation is called *prudential regulation* and is distinguished from the traditional techniques of banking supervision such as the operation of a lender of last resort (a role usually assumed by the national Central Bank) in the accent that it places on the institutional framework employed for the prevention of banking crises. Modern systems of prudential regulation for banks construct an institutional framework that provides appropriate *capital adequacy*, *operational quality* and *solvency ratio* requirements that ensure the sound and safe operation of the banking system and not just the containment of banking crises.

Furthermore, the global financial crisis has meant that many countries were forced to provide public funds to rescue their banks. Given the necessity to prevent a similar crisis happening again and the fact that banking is today an essentially global industry, a number of international bodies such as the G20, the Financial Stability Board, the Basle Committee on Banking Supervision and the world's major central banks are involved in fashioning a new set of regulations governing the capital and liquidity adequacy of financial institutions. The same bodies are also involved in drawing rules regarding the rescue, restructuring and resolution of systemically important banks and overhauling of the tools that bank supervisors and other public regulators must have at their disposal.

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## **B. The Fundamental Functions of the Financial System**

1. to clear and to settle payments;
2. to aggregate and to disaggregate wealth and flows of funds bringing together large/small-scale investors with savers;

3. to shift financial resources over time, space and industries;
4. to accumulate, to process and to disseminate information for decision making purposes;
5. to provide ways for managing uncertainty and controlling risk;
6. to provide ways for dealing with incentive and asymmetric information problems that arise in financial contracting.

All financial institutions perform some of the related functions but only commercial banks perform all of them and are the most responsible for the evolution of each individual function. This is one of the reasons the banking system is the most important sector of any financial system. In general, the principal financial institutions are:

- Commercial banks (domestic and foreign)
- investment banks (domestic and foreign);
- Savings and loans (S&Ls), savings banks, and credit unions, also called thrift institutions;
- Insurance companies;
- Private and government pension funds;
- Finance companies which deal either with consumer and commercial;
- Mutual funds as money market, hedge, bond, stock;

### **C. Banks**

Banks perform various roles in the economy.

First, they ameliorate the information problems between investors and borrowers by monitoring the latter and ensuring a proper use of the depositors' funds.

Second, they provide intertemporal smoothing of risk that cannot be diversified at a given point in time as well as insurance to depositors against unexpected consumption shocks. Because of the maturity mismatch between their assets and liabilities, however, banks are subject to the possibility of runs and systemic risk.

Third, banks contribute to the growth of the economy.

Fourth, they perform an important role in corporate governance. The relative importance of the different roles of banks varies substantially across countries and times but, banks are always critical to the financial system.

#### **D. Bank Regulation**

##### *Objectives*

The objectives of bank regulation, and the emphasis, vary between jurisdictions. The most common objectives are:

1. Prudential -- to reduce the level of risk bank creditors are exposed to (i.e. to protect depositors)
2. Systemic risk reduction -- to reduce the risk of disruption resulting from adverse trading conditions for banks causing multiple or major bank failures
3. Avoid misuse of banks -- to reduce the risk of banks being used for criminal purposes, e.g. laundering the proceeds of crime
4. To protect consumers of bank services
5. Banking confidentiality

##### *Regulatory Tools*

Bank Licensing

Bank Capital

Deposit Insurance

Money Laundering Regulations

##### *What is bank capital?*

In its simplest form, capital represents the portion of a bank's assets which have no associated contractual commitment for repayment. It is, therefore, available as a cushion in case the value of the bank's assets declines or its liabilities rise.

For example, if a bank has \$100 of loans outstanding, funded by \$92 of deposits and \$8 of common stock invested by the bank's owners, then this capital of \$8 is available to protect

the depositors against losses. If \$7 worth of the loans were not repaid, there would still be more than enough money to pay back the depositors. The shareholders would suffer a nearly complete loss, but this is considered a private matter, whereas there are strong public policy reasons to protect depositors.

If bank balance sheets were always accurate and banks always made profits, there would be no need for capital. Unfortunately, we do not live in that utopia, so a cushion of capital is necessary. Banks attempt to hold the minimum level of capital that supplies adequate protection, since capital is expensive, but all parties recognize the need for such a cushion even when they debate the right amount or form.

*What role does bank capital play?*

There is a strong consensus among policymakers that there need to be higher minimum capital requirements for banks in order to foster a more stable financial system and to help avoid the recurrence of a financial crisis of the magnitude of the recent one. However, higher capital requirements are not free – banks are likely to lend less, charge more for loans, and pay less on deposits as part of their actions to restore an acceptable return on the larger capital base they will need to employ. Determining the right minimum capital requirements therefore necessitates a careful balancing of the stability benefits against the economic costs of less attractive lending conditions.

The recent financial crisis demonstrated again the critical importance of bank capital. As a result, virtually all proposals to reform regulation of financial institutions aim to increase the amount and quality of capital in the financial.

## **Reading**

Franklin Allen and Elena Carletti, 'The Role of Banks in Financial Systems', March 2008  
<http://fic.wharton.upenn.edu/fic/papers/08/0819.pdf>

Douglas J. Elliott: 'A Primer on Bank Capital' (Brookings Institute, 2010)  
[http://www.brookings.edu/~media/Files/rc/papers/2010/0129\\_capital\\_elliott/0129\\_capital\\_primer\\_elliott.pdf](http://www.brookings.edu/~media/Files/rc/papers/2010/0129_capital_elliott/0129_capital_primer_elliott.pdf)

### III. CAPITAL MARKETS AND REGULATION

#### A. Description of Capital Markets

##### 1. Overview

- Money markets: instruments with maturity of under 1 year, e.g. 3 month Treasury Bills
- Securities Markets : Shares, Bonds, convertibles
- Futures/Derivatives Markets
- Exchanges
- Alternative Trading Systems
- OTC markets

##### 2. Capital Markets Instruments

###### a. Securities

- The term ‘securities’ is only used for shares, long and medium term debt securities, and hybrids between these two types
- **Shares** –equity participation: Ordinary shareholders provide the firm with equity capital and receive in return, at the latest with the dissolution of the company, an entitlement to the yield remaining after deduction of contractual liabilities. Furthermore, as providers of equity capital they share in the supervision of the company through their voting rights.
- **Bonds** - debt securities: Like a loan, a debt security is a simple credit contract. Therefore it only confers to its holder a creditor’s right against the issuer, but – in contrast to a shareholder – he or she does not become part of the corporate governance of a company. Investors in debt securities usually have no control rights and do not share in the issuer’s growth. However, debt securities have the advantage that, in general, investors know what they will get back, namely the principal upon the maturity date (the face value, par value, or nominal value of the debt security) and

periodic interest payments (the coupons). Furthermore, in case of insolvency of the issuer, they rank above shareholders for repayment. Debt securities issued by the state often have special names, such as gilts in the UK and Ireland, *Bunds* in Germany, and treasuries in the US.

- **Hybrids:** convertible bonds and preference shares

*b. Other Instruments*

- futures, options, and swaps which are not about corporate finance, but about hedging and speculation,
- units in investment funds which enable investors to diversify their investment.
- Short term debt securities are called ‘money-market instruments’
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**B. Regulation of Capital Markets**

*1. The Structure of Regulation of Capital Markets*

- Market Regulation vs Public Regulation
- Issuers, Instruments, Public Offers
- Securities Markets Regulation and Market Abuse
- Investment Firms Regulation and Conduct of Business

*2. The General Principles of Securities Regulation*

- Protection of market efficiency, transparency and integrity
- Protection of investors and consumers
- Protection of the Financial System

*3. The Economic Benefits of Securities Regulation*

- **La Porta et al.:** developed securities markets foster growth but they need a strong regulatory environment to thrive
- **Black:** ‘A strong public securities market, especially a public stock market, can facilitate economic growth. But creating strong public securities markets is hard. That securities markets exist at all is magical, in a way. Investors pay enormous amounts of money to strangers for completely intangible rights, whose value depends entirely on the quality of the information that investors receive and on the sellers’ honesty.’
- Securities Laws matter if they are enforced and private enforcement is very important
- Transparent securities markets free of abuse are efficient and liquid markets

### **Reading:**

#### *Books*

E. Avgouleas, *The Mechanics and Regulation of Market Abuse*, (Oxford: Oxford University Press, 2005), **chapter 2**.

#### *Articles & Reports*

Bernard S. Black, ‘The Legal and Institutional Preconditions for Strong Securities Markets’ . International Organization of Securities Commissions, ‘Objectives and Principles of Securities Regulation’, May 2003.



## FINANCIAL SYSTEMS AND DEVELOPMENT

### A. FINANCIAL SECTOR DEVELOPMENT

#### **How the Financial System Fosters/Stimulates Economic Growth**

##### *Information Production Facilitating Investor (Saver – Shareholder) Monitoring and Capital Allocation*

There are large costs associated with evaluating firms, managers, and market conditions before making investment decisions. Individual savers may not have the ability to collect, process, and produce information on possible investments. Since savers will be reluctant to invest in activities about which there is little reliable information, high information costs may keep capital from flowing to its highest value use. Although many models assume that capital flows toward the most profitable firms, this presupposes that investors have good information about firms, managers, and market conditions.

Financial intermediaries may reduce the costs of acquiring and processing information and thereby improve resource allocation. Without intermediaries, each investor would face the large fixed cost associated with evaluating firms, managers, and economic conditions. Consequently, groups of individuals may form financial intermediaries that undertake the costly process of researching investment possibilities for others.

By improving information on firms, managers, and economic conditions, financial intermediaries can accelerate economic growth. Besides identifying the best production technologies, financial intermediaries may also boost the rate of technological innovation by identifying those entrepreneurs with the best chances of successfully initiating new goods and production processes.

**Stock markets** may also stimulate the production of information about firms.

As markets become larger and more liquid, agents may have greater incentives to expend resources in researching firms because it is easier to profit from this information by trading in big and liquid markets (Grossman and Stiglitz, 1980; Kyle, 1984; Holmstrom and Tirole, 1993). Intuitively, with larger and more liquid

markets, it is easier for an agent who has acquired information to disguise this private information and make money by trading in the market. Thus, larger, more liquid markets will boost incentives to produce this valuable information with positive implications for capital allocation (Merton, 1987).

*Yet are private actors in capital markets rational utility maximizers?*

*Are capital markets efficient resource allocators or rather constant generators of asset bubbles as a result of irrational exuberance or herding leading to grand scale wastage of resources rather than their efficient allocation?*

### *Strengthening Corporate Governance*

To the extent that shareholders and creditors effectively monitor firms and induce managers to maximize firm value, this will improve the efficiency with which firms allocate resources and make savers more willing to finance production and innovation. In turn, the absence of financial arrangements that enhance corporate governance may impede the mobilization of savings from disparate agents and also keep capital from flowing to profitable investments.

An assortment of market frictions may keep diffuse shareholders from effectively exerting corporate governance, which allows managers to pursue projects that benefit themselves rather than the firm and society at large. In particular, large information asymmetries typically exist between managers and small shareholders and managers have enormous discretion over the flow of information. Furthermore, small shareholders frequently lack the expertise and incentives to monitor managers because of the large costs and complexity associated with overseeing managers and exerting corporate control. This may induce a “free-rider” problem because each stockowner’s stake is so small: Each investor relies on others to undertake the costly process of monitoring managers, so there is too little monitoring. The resultant gap in information between corporate insiders and diffuse shareholders implies that the voting rights mechanism will not work effectively. Also, the board of directors may not represent the interests of minority shareholders. Management frequently “captures” the board and manipulates directors into acting in the best interests of the managers, not the shareholders.

Finally, in many countries legal codes do not adequately protect the rights of small shareholders and legal systems frequently do not enforce the legal codes that actually are on the books concerning diffuse shareholder rights. Thus, large information and contracting costs may keep diffuse shareholders from effectively exerting corporate governance, with adverse effects on resource allocation and economic growth.

### *A.3. 3 Risk Management (Reduction of risk through diversification)*

With information and transactions costs, financial contracts, markets, and intermediaries may arise to ease the trading, hedging, and pooling of risk with implications for resource allocation and growth. Financial systems manage risk through three techniques: cross-sectional risk diversification, inter-temporal risk sharing, provision of liquidity to contain liquidity risk.

#### Cross-sectional diversification of risk

Financial systems may mitigate the risks associated with individual projects, firms, industries, regions, countries, and so forth. Banks, mutual funds, and securities markets all provide vehicles for trading, pooling, and diversifying risk.

The financial system's ability to provide risk diversification services can affect long-run economic growth by altering resource allocation and savings rates. The basic intuition is straightforward. Although savers generally do not like risk, high-return projects tend to be riskier than low-return projects. Thus, financial markets that make it easier for people to diversify risk tend to induce a portfolio shift toward projects with higher expected returns (Gurley and Shaw, 1955; Patrick, 1966; Greenwood and Jovanovic, 1990).

In terms of technological change, King and Levine (1993b) show that cross-sectional risk diversification can stimulate innovative activity. Agents are continuously trying to make technological advances to gain a profitable market niche. Engaging in innovation is risky, however. **The ability to hold a diversified portfolio of innovative projects reduces risk and promotes investment in growth enhancing innovative activities (with sufficiently risk averse agents). Thus, financial systems that ease risk diversification can accelerate technological change and economic growth.**

### Liquidity risk.

Liquidity reflects the cost and speed with which agents can convert financial instruments into purchasing power at agreed prices. Liquidity risk arises due to the uncertainties associated with converting assets into a medium of exchange. Informational asymmetries and transaction costs may inhibit liquidity and intensify liquidity risk. These frictions create incentives for the emergence of financial markets and institutions that augment liquidity.

The standard link between liquidity and economic development arises because some high-return projects require a long-run commitment of capital, but savers do not like to relinquish control of their savings for long-periods. Thus, if the financial system does not augment the liquidity of long-term investments, less investment is likely to occur in the high-return projects.

Indeed, Hicks (1969, p. 143–45) argues that the products manufactured during the first decades of the Industrial Revolution had been invented much earlier. Rather, the critical innovation that ignited growth in eighteenth-century England was capital market liquidity.

With liquid capital markets, savers can hold liquid assets—like equity, bonds, or demand deposits—that they can quickly and easily sell if they seek access to their savings. Simultaneously, capital markets transform these liquid financial instruments into long-term capital investments. Thus, the industrial revolution required a financial revolution so that large commitments of capital could be made for long periods (Bencivenga, Smith, and Starr, 1995). Levine (1991) shows that the endogenous formation of equity markets to provide liquidity can affect economic growth.

Specifically, businesses receiving shocks that increase their need for liquidity can sell their equity claims to the future profits of the illiquid production technology to others. Market participants do not verify whether other agents received shocks or not. Participants simply trade in impersonal stock exchanges. Thus, with liquid stock markets, equity holders can readily sell their shares, while firms have permanent access to the capital invested by the initial shareholders. By facilitating trade, stock markets reduce liquidity risk. As stock market transaction costs fall, more investment

occurs in illiquid, high-return projects. If illiquid projects enjoy sufficiently large externalities, then greater stock market liquidity induces faster steady-state growth.

Financial intermediaries may also enhance liquidity, reduce liquidity risk, and influence economic growth. Banks can offer liquid deposits to savers and undertake a mixture of liquid, low-return investments to satisfy demands on deposits and illiquid, high-return investments. By providing demand deposits and choosing an appropriate mixture of liquid and illiquid investments, banks provide complete insurance to savers against liquidity risk while simultaneously facilitating long-run investments in high-return projects. Bencivenga and Smith (1991) show that, by eliminating liquidity risk, banks can increase investment in the high-return, illiquid asset and therefore accelerate growth.

#### *A.3. 4 Pooling of Savings*

Mobilization—*pooling*—is the costly process of agglomerating capital from disparate savers for investment. Mobilizing savings involves (i) overcoming the transaction costs associated with collecting savings from different individuals and (ii) overcoming the informational asymmetries associated with making savers feel comfortable in relinquishing control of their savings.

To economize on the costs associated with multiple bilateral contracts, pooling may also occur through intermediaries, where thousands of investors entrust their wealth to intermediaries that invest in hundreds of firms (Sirri and Tufano, 1995, p. 83). For this to occur, “mobilizers” have to convince savers of the soundness of the investments (Boyd and Smith, 1992). Toward this end, intermediaries worry about establishing stellar reputations, so that savers feel comfortable about entrusting their savings to the intermediary (Lamoreaux, 1994).

Rafael la Porta, Florencio Lopez-de-Silanes, Andrei Shleifer & Robert Vishny, *Legal Determinants of External Finance*, 52 J. FIN. 1131 (1997) (arguing that strong equity markets require strong minority rights). Indeed, securities markets may not be able to expand

to their full potential in the absence of some mandatory legal regimes protecting minority shareholder rights. John C. Coffee, Jr., *The Rise of Dispersed Ownership: The Roles of Law and the State in the Separation of Ownership and Control*, 111 YALE L.J. 1, 65 (2001). Nevertheless, even in the absence of highly developed law, equity markets can, and have, still developed. There are a variety of institutional accounts as to why this is the case. *See e.g.*, Katharina Pistor & Chenggang Xu, *Governing Stock Markets in Transition Economies: Lessons from China*, 7 AM. L. & ECON. REV. 184 (2005) (arguing that administrative governance can substitute for formal legal governance). Usually, however, securities markets ultimately encounter shocks that result in a loss of investor confidence that legal institutions help buffer against. *See Coffee, Dispersed Ownership, supra*, at 65.

corroborate

**Financial systems that are more effective at pooling the savings of individuals can profoundly affect economic development by increasing savings, exploiting economies of scale, and overcoming investment indivisibilities.**

Besides the direct effect on capital accumulation, better savings mobilization can improve resource allocation and boost technological innovation. Without access to multiple investors, many production processes would be constrained to economically inefficient scales (Sirri and Tufano, 1995).

*Easing Exchange*

Financial arrangements that lower transaction costs can promote specialization, technological innovation, and growth. The links between facilitating transactions, specialization, innovation, and economic growth were core elements of Adam Smith's (1776) *Wealth of Nations*. He argued that division of labor—specialization—is the principal factor underlying productivity improvements. With greater specialization, workers are more likely to invent better machines or production processes:

Greenwood and Smith (1996) have modeled the connections between exchange, specialization, and innovation. More specialization requires more transactions. Since each transaction is costly, financial arrangements that lower

transaction costs will facilitate greater specialization. In this way, markets that promote exchange encourage productivity gains.

## **Financial Sector Development**

Unfortunately, financial markets development is one of the most complex areas in the development field. Financial development occurs when financial instruments, markets, and intermediaries ameliorate—though do not necessarily eliminate—the effects of information, enforcement, and transactions costs and therefore do a correspondingly better job at providing the five financial functions.

Thus, financial development involves improvements in the (i) production of ex ante information about possible investments; (ii) monitoring of investments and implementation of corporate governance; (iii) trading, diversification, and management of risk; (iv) mobilization and pooling of savings; and (v) exchange of goods and services.

Although all financial systems provide these financial functions, there are large differences in how well financial systems provide these functions.

### *Is there an Optimal Size for the Financial Sector?*

Also, as evidenced by the recent financial crisis there may be an optimal size for the financial sector and its development beyond that boundary imposes a tax on society which subsidizes its further development. Also an oversized financial sectors may be inherently unstable undermining the growth of the national economy (e.g. Iceland, Ireland, Switzerland). It may also impose enormous costs on taxpayers who will have to rescue the ‘too-big-to-fail’ institutions. The US, the UK, Ireland, Switzerland and other countries with oversized financial sectors had to incur costs running in the trillions of dollars in order to rescue it from collapse during the global financial crisis. (Stiglitz Report).

## **B. FSD AND ECONOMIC DEVELOPMENT**

### **1 FSD Determinants**

#### *1.1 Historical Determinants*

A specific body of research that examines determinants of financial development focuses on historical determinants of financial development and studies the legal, political, cultural,

ethnic, and geographic differences across countries that may shape development of financial institutions and markets.

La Porta et al. (1997 and 1998) stress that differences in legal traditions shape the laws and enforcement mechanisms that protect the rights of outside investors, thus influencing financial development. Focusing on the differences between the two most influential legal traditions, the British Common Law and the French Civil Law, this view holds that legal traditions differ in terms of the priority they attach to protecting the rights of private investors against the state.

Beck, Demirgüç-Kunt, and Levine (2003b and 2005), Beck and Levine (2005), and Levine (2005) also show that legal system adaptability is crucial and more flexible legal systems do a better job at meeting the continuously changing financial needs of the economy and promoting financial development.

Haber (2004), Pagano and Volpin (2001), and Rajan and Zingales (2003) focus on how forces of political economy shape national policies toward financial development and influence and change the political power of entrenched incumbents. According to this view, closed political systems are more likely to impede the development of financial systems that promote competition and threaten entrenched powers than open political systems. This is because centralized and powerful states are more responsive to and efficient at implementing policies that protect the interests of the elite than decentralized and competitive political systems with an assortment of checks and balances.

Stulz and Williamson (2003) emphasize **the role of religion and culture** in influencing development of institutions. Many scholars argue that religion shapes national views regarding institutions, including financial institutions. For example, it is said that the Catholic Church fosters “vertical bonds of authority” rather than “horizontal bonds of fellowship.” This view suggests that Catholic and Muslim countries tend to develop cultures that maintain control, limiting



competition and private property rights. Alesina et al. (2003) and Easterly and Levine (1997, 2003) focus on ethnic differences, instead. They argue that in highly ethnically diverse economies, the group that comes to power tends to implement policies that expropriate resources, restrict the rights of other groups, and prevent the growth of industries or sectors that threaten the ruling group.

Others stress **the role of initial geographic endowments** in determining attitudes towards development of different institutions (Engerman and Sokoloff, 1997; Acemoglu, Johnson, and Robinson, 2001). Acemoglu, Johnson, and Robinson (2001) focus on the disease environment and argue that the degree to which Europeans could settle in a land influenced the choice of colonization strategy with long-lasting implications on institutions. Engerman and Sokoloff (1997) focus on the geographic endowments and study the differential development of institutions in North America. They argue that the geographic conditions in the North that favored production of wheat and maize fostered a large middle class with egalitarian institutions, whereas the conditions in the South that led to the production of rice and sugarcane also led to the rise of a powerful elite and more closed institutions.

Beck, Demirgüç-Kunt, and Levine (2003a) investigate the relative importance of these historical determinants of financial development and find that differences in initial endowments and legal origins are robustly associated with development of financial institutions and markets. Thus, countries with common law origins with better protection of outside investors were more likely to develop financial institutions. But colonization strategy also mattered: Tropical environments, inhospitable to European settlement, were more likely to foster extractive institutions as opposed to institutions that promote financial development.

Perhaps most important from a policy viewpoint, however, is the government's role in building efficient and inclusive financial systems, making particularly interesting the evidence on the role of regulations and economic policies in influencing financial development.

### *1.2 Role of Policies and Regulation*

Besides historical forces, government policies shape the structure and functioning of financial systems. Specifically, the degree of political and macroeconomic stability and the operation of legal, regulatory, and information systems all influence the financial contracting environment. Furthermore, governments influence the ownership of financial institutions and business practices (**related banking**) as well as the degree of contestability by foreign and domestic sources, which affect the functioning of financial systems and the degree to which individuals have access to sources of finance.

#### Political and Macroeconomic Environment

Political turmoil may lead to macroeconomic instability and deterioration in business conditions. Civil strife and war destroys capital and infrastructure, and expropriations may follow military takeovers. Corruption and crime thrive in such environments, increasing cost of doing business and creating uncertainty about property rights. Detragiache, Gupta, and Tressel (2005) show that for low income countries political instability and corruption have a detrimental effect on financial development. Investigating the business environment for 80 countries using firm level survey data, Ayyagari, Demirgüç-Kunt, and Maksimovic (2005) find that political instability and crime are important obstacles to firm growth, particularly in African and Transition countries. Further, Beck, Demirgüç-Kunt, and Maksimovic (2004a) show that the negative impact of corruption on firm growth is most pronounced for smaller firms.

Given a stable political system, well-functioning financial systems also require fiscal discipline and stable macroeconomic policies on the part of governments. Monetary and fiscal policies affect the taxation of financial intermediaries and provision of financial services (Bencivenga and Smith, 1992; Huybens and Smith, 1999; Roubini and Sala-i-Martin, 1992, 1995). Often large

financing requirements of governments crowd out private investment by increasing the required returns on government securities and absorbing the bulk of the savings mobilized by the financial system.

Bank profitability does not necessarily suffer given the high yields on these securities, but the ability of the financial system to allocate resources efficiently is severely curtailed. Empirical studies have also shown that countries with lower and more stable inflation rates experience higher levels of banking and stock market development (Boyd, Levine, and Smith, 2001) and high inflation and real interest rates are associated with higher probability of systemic banking crises (Demirgüç-Kunt and Detragiache, 1998, 2005).

#### Legal Infrastructure – Shareholder/Creditor Rights

Financial systems also require developed legal infrastructures to function well. **Firms' ability to raise external finance in the formal financial system is quite limited if the rights of outside investors are not protected.**

**Outside investors are reluctant to invest in companies if they will not be able to exert corporate governance and protect their investment from controlling shareholders/owners or the management of the companies. Thus, protection of property rights and effective enforcement of contracts are critical elements in financial system development.**

**Empirical evidence shows firms are able to access external finance in countries where legal enforcement is stronger** (La Porta et al., 1997; Demirgüç-Finance, Kunt and Maksimovic, 1998; Beck, Demirgüç-Kunt, and Maksimovic, 2005), **and that better creditor protection increases credit to the private sector** (Djankov, McLiesh, and Shleifer, 2007).

More effective legal systems allow more flexible and adaptable conflict resolution, increasing firms' access to finance (Djankov et al., 2007; Beck, Demirgüç-Kunt, and Levine, 2005). In countries where legal systems are more effective, financial systems have lower interest rate spreads and are more efficient (Demirgüç-Kunt, Laeven, and Levine, 2004; Laeven and Majnoni, 2005).

**Strong property rights are also a fundamental aspect of financial system development. They have to be complemented by a legal environment where for speedy conflict resolution and contract enforcement, and esp. enforcement of creditors' security.**

#### Information Infrastructure and Shareholder and Creditor Rights

Strengthening accounting systems and provision of timely information to shareholders is an essential ingredient of developed financial markets.

Moreover, timely availability of good-quality information is equally important, since this helps reduce information asymmetries between borrowers and lenders. The collection, processing, and use of borrowing history and other information relevant to household and small business lending—credit registries—have been rapidly growing in both the public and private sectors (see Miller, 2003 for an overview). Computer technology has also greatly improved the amount of information that can be analyzed to assess creditworthiness, such as through credit scoring techniques.

In this context public and private credit registries may play a serious development role. Empirical results show that the volume of bank credit is significantly higher in countries with more information sharing (Jappelli and Pagano, 2002; Djankov, McLeish, and Shleifer, 2007). Firms also report lower financing obstacles with better credit information (Love and Mylenko, 2004). Detragiache, Gupta, and Tressel (2005) find that better access to

information and speedier enforcement of contracts are associated with deeper financial systems even in low-income countries. Indeed, compared to high-income countries, in lower-income countries it is credit information more than legal enforcement that matters (Djankov, McLeish, and Shleifer, 2007).

### Regulation and Supervision

Most economists agree that there is a role for government in the regulation and supervision of financial systems, the extent of this involvement is an issue of active debate (Barth, Caprio, and Levine; 2004, 2006, 2008a,b).

One extreme view is the laissez-faire or invisible-hand approach, where there is no role for government in the financial system, and markets are expected to monitor and discipline financial institutions. This approach has been criticized for ignoring market failures because depositors, particularly small depositors, often find it too costly to be effective monitors. Thus, governments often act as delegated monitors for depositors, exploiting economies of scale to overcome costly information problems.

On the other hand, many advocate a more interventionist approach, where

government regulation is seen as the solution to market failures: powerful supervisors are expected to ensure stability of the financial system and guide banks in their business decisions through regulation and supervision.

This view relies on two crucial assumptions: first, that governments know better than markets, and second, that they act in the best interests of the society. To the extent that officials generally have limited knowledge and expertise in making business decisions and can be subject to political and regulatory capture, these assumptions will not be valid.

Between the two extremes lies the private empowerment (MARKET DISCIPLINE) view of financial regulation. This view simultaneously recognizes the potential importance of market failures, which motivate government intervention, and political/regulatory failures, which suggest that supervisory agencies do not necessarily have incentives to ease market failures.

The focus is on enabling markets. But there is also an important role for governments in enhancing the ability and incentives of private agents to overcome information and transaction costs, so that private investors can exert effective governance over banks.

Consequently, the private empowerment view seeks to provide supervisors with the responsibility and authority to induce banks to disclose accurate information to the public, so that private agents can more effectively monitor banks (Barth, Caprio, and Levine, 2006).

Empirical evidence overwhelmingly supports the private empowerment view. Although there is little evidence that empowering regulators enhances bank stability, there is evidence that regulations and supervisory practices that force accurate information disclosure and promote private sector monitoring boost the overall level of banking sector and stock market development (Barth, Caprio, and Levine, 2006).

Beck, Demirgüç-Kunt, and Levine (2006) show that bank supervisory practices that force accurate information disclosure ease external financing constraints of firms, whereas countries that empower their official supervisors actually make external financing constraints more severe by increasing the degree of corruption in bank lending.

**Yet the market discipline view of market regulation and bank supervision collapsed like a house of cards under the burden of ‘too-big-to-fail’ institutions whose rescue cost G20 countries dozens of trillions of dollars (Avgouleas 2009a, Avgouleas 2009b).**

Furthermore, La Porta, Lopez-de-Silanes, and Shleifer, (2006) find a similarly positive effect of private monitoring and disciplining for stock market development. Laws and liability rules that mandate disclosure and facilitate private enforcement promote stock market development, while there is little evidence for a positive effect of public enforcement. However, as discussed in section C.2 below **this view is also contested**

Related to the debate on different approaches for regulation and supervision, is the important debate on whether prudential regulation and safety nets designed for developed countries can be successfully transplanted to developing countries. Research shows that financial sector policy that is considered appropriate in advanced economies can prove ineffective or even counterproductive in weak institutional environments of developing countries.

For example, powerful regulators are not significantly associated with increased corruption in banking in countries with strong institutions that provide checks and balances, but lead to greater capture and corruption in lower-income countries. However, although empowering the markets and focusing on information disclosure are policies that promote bank stability most effectively in countries where there is strong rule of law, but there are observed no negative effects of such policies even in low-income countries (Beck, Demirgüç-Kunt, and Levine, 2006).

#### Contestability and Efficiency

Competition policies in banking may involve difficult tradeoffs. Although greater competition may enhance the efficiency of banks with positive implications for economic growth, greater competition may also destabilize banks with costly repercussions for the economy.

Recent research has shown that contrary to conventional wisdom, the tradeoffs are exaggerated when it comes to bank competition. Greater competition—as captured by lower entry barriers, fewer regulatory restrictions

on bank activities, greater banking freedom, and better overall institutional development—is good for efficiency, good for stability, and good for firms' access to finance ( Beck, Demirgüç-Kunt, and Levine (2006b), Claessens and Laeven (2004), and Demirgüç-Kunt, Laeven, and Levine (2004)).

Regulations that interfere with competition make banks less efficient, more fragile, and reduce firms' access to finance. Thus, it seems to be a good idea for governments to encourage competition in banking by reducing the unnecessary impediments to entry and activity restrictions. Similarly, improving the institutional environment and allowing greater freedoms in banking and economy in general would lead to desirable outcomes.

**Ownership is another important dimension of competition in banking.**

**Foreign banking is associated with generally positive outcomes. State ownership is associated with higher margins, greater fragility, and even less and lower quality of access.** These findings highlight the importance of removing impediments to foreign entry and provide further justification for bank privatization policies.

#### Government Ownership of Financial Institutions

**A growing body of evidence shows that government ownership of banks everywhere, but especially in developing countries, leads to lower levels of financial development, more concentrated lending, and lower economic growth, and greater systemic fragility** (La Porta, Lopez-de-Silanes, and Shleifer, 2002; Barth, Caprio, and Levine, 2004).



**Furthermore, there is no evidence that state-owned banks help the poor; rather, state-owned banks tend to funnel credit to politically favored and commercially unviable projects** ( Beck, Demirgüç-Kunt, and Levine, 2006a).

Even in the area of access to financial services, recent evidence suggests that bank customers face higher barriers to credit services in banking systems that are predominantly government-owned (Beck, Demirgüç-Kunt, and Martinez Peria, 2007).

Overall, a large body of empirical evidence suggests that governments do not have a comparative advantage in owning financial institutions. Nevertheless, privatization also entails risks and needs careful design (Megginson and Netter, 2008). Studies of privatization processes suggest the preferred strategy is moving slowly but deliberately with bank privatization, while preparing state banks for sale and addressing weaknesses in the overall incentive environment.

On average, bank privatization tends to improve performance over continued state ownership. There are advantages to full rather than partial privatizations; and in weak institutional environments, selling to a strategic investor and inviting foreign interests to participate in the process increase the benefits.

**Privatization, however, is not a panacea, and privatizing banks without addressing weaknesses in the underlying incentive environment and market structure will not lead to a deeper and more efficient financial system.**

### Financial Liberalization

Many countries liberalized their financial systems in the 1980s and 1990s with mixed results. Liberalization, including deregulation of interest rates and more

relaxed entry policies, often led to significant financial development, particularly in countries where there was significant repression, but the enthusiasm with which financial liberalization was adopted in some countries in the absence of or slow implementation of institutional development also left many financial systems vulnerable to systemic crises (Demirgüç-Kunt and Detragiache, 1999).

Poor sequencing of financial liberalization in a poorly prepared contractual and supervisory environment contributed to bank insolvencies as banks protected by implicit and explicit government guarantees aggressively took advantage of new opportunities to increase risk, without the necessary lending skills. Banking crises in Argentina, Chile, Mexico, and Turkey in the 1980s and 1990s have been attributed to these factors. These experiences with financial liberalization underline the importance of sequencing liberalization with policy, regulatory, and institutional improvements.

The relationship between the exchange rate regime and financial liberalization is another area of active debate. One of the reasons this is an important issue is because the choice of exchange rate regime may influence the extent to which the impact of external shocks affect financial stability. For instance, flexible exchange rates may have a stabilizing effect on the financial system since the exchange rate can absorb some of the real shocks to the economy (Mundell, 1961). Flexible regimes may also curtail the tendency of countries to over-borrow in foreign currency and discourage banks from funding dangerous lending booms through external credit (Eichengreen and Hausmann, 1999). Further, with a fixed exchange rate (and even more so with a currency board), lender of last resort operations are severely limited, since domestic monetary expansion risks undermining confidence in the currency peg.

On the other hand, a commitment to a currency peg may reduce the probability of banking crises by disciplining policy makers (Eichengreen and Rose, 1998). The lack of an effective

lender of last resort may also discourage risktaking by bankers, decreasing the likelihood of a banking crisis. Finally, developing countries are often plagued by lack of credibility and limited access to international markets, and suffer from more pronounced effects of exchange rate volatility due to their high liability dollarization. Thus, the additional transparency and credibility associated with fixed exchange rates may insulate a country from contagion.

**With financial liberalization, developing economies are increasingly liberalizing restrictions on the entry of foreign financial institutions.**

Although governments have worried about whether allowing foreign banks to take a large ownership share in the banking system could damage financial and economic performance, the bulk of the empirical research in this area, particularly drawing on the experience of Latin American and Eastern European countries, suggests that facilitating entry of reputable foreign institutions to the local market **should be welcomed.** Arrival or expansion of foreign banks can also be disruptive as the Indian experience shows evidence of cream-skimming by foreign banks (Gormley, 2004). Even there however, in the years following entry, foreign banks

have started expanding their clientele base. Overall, a large body of evidence suggests that over time foreign bank entry brings competition, improves efficiency, lifts the quality of the financial infrastructure, and expands access.

However, as the African experience illustrates, foreign bank entry cannot guarantee rapid financial development in the absence of sound contractual and informational weaknesses (Honohan and Beck, 2007).

**Although many support liberalizing financial systems, there are also concerns that this leaves them more open to volatility and crises.**

Policy discussion has also focused **on proper design of capital controls,** which could prevent or mitigate the effects of sudden shifts in foreign capital. Controls can take the form of restrictions on outflows; restrictions on aggregate inflows; restrictions on short-term flows

(a la Chile); or a Tobin tax, aimed at imposing a small uniform tax on all foreign exchange transactions, regardless of their nature. There is a large literature on the effects of capital controls, but overall, these empirical studies suggest that these controls

work at best temporarily, with the effects diminishing over time, and are not effective in preventing spillovers from very large shocks.

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Besides debt and equity flows, workers' remittances, funds received from migrants working abroad, have grown steadily in recent years becoming the second largest source of external finance after foreign direct investment. Furthermore, unlike other capital flows, remittances tend to be stable even during periods of economic downturns and crises. Recent research also suggests that remittances do promote financial development.

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### Access to Finance

Modern development theory sees the lack of access to finance as a critical mechanism for generating persistent income inequality, as well as slower growth. A very important finding in this context is that small enterprises and poor households face much greater obstacles in their ability to access finance all around the world, but particularly in developing countries.

Access to finance is a very difficult term to define and, perhaps, in the case of the poor, not even the most appropriate one. Normally, access to finance is taken to mean access to certain institutions, such as banks, insurance companies, or microfinance institutions; or access to the functions (services) that they provide, such as payments services, savings or loans and credits, or use of certain financial products such as credit cards, mortgage and insurance products.<sup>1</sup> A more conceptual approach would take access to mean<sup>2</sup>: (a) the availability of

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<sup>1</sup> Anne-Marie Chidzero, Karen Ellis and Anjali Kumar, 'Indicators of Access to Finance, Through Household Level Surveys, Comparisons of Data from Six Countries', paper presented in the World Bank conference: *Access to Finance: Building Inclusive Financial Systems*, 30 May 2006, p.1, [hereinafter *Indicators of Access to Finance*].

<sup>2</sup> See, in general, Stijn Claessens, 'Access to Financial Services: A Review of the Issues and Public Policy Objectives', World Bank Policy Research Working Paper 3589, May 2005, pp 6-12 [hereinafter Claessens, *Access to Financial Services*]; Augusto de la Torre, Juan Carlos Gozzi and Sergio L. Schmukler, 'Innovative

financial services and reliability of financial services (namely, whether finance is available when needed/desired), (b) convenience, which is the criterion that, apart of geographic access, measures the degree of ease of access and its continuity; can finance be accessed repeatedly? (c) geographic access, namely, how far or near a consumer is from the point of service and proximity or accessibility of financial advisers to community-based infrastructure, (d) the cost/price at which financial services are available; this criterion is also called affordability of financial services, which is measured by the cost of basic access relative to income, (e) the quantity, type and quality of financial services offered, and (f) flexibility, namely, is the product tailored to the needs of the users?

Most of the above criteria allow for an objective measurement of access.<sup>3</sup> Yet, even if access can be measured it may not be the right criterion. First, there are many dimensions to access, making it more difficult to establish the degree of (lack) of access. Second, even if there exists a market, where some financial services are accessible, poor people may still choose not to use it. Accordingly, an alternative approach, which measures not so much access, but usage of financial services, may be more appropriate in the case of the poor. Usage can be measured quite easily using historical data. It can also be compared across sectors, since the usage patterns of particular markets can be tracked over time. Therefore, a market which works for the poor is one in which usage of the service by poor people is increasing over time. Increasing usage clearly implies both accessibility and appropriateness, without the need to define either too closely. As a result, if the proportion of poor customers to total customers in a particular market segment increases over time, then relatively more poor people are using the products provided by that market.

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Experiences in Access to Finance: Market Friendly Roles for the Visible Hand?', World Bank mimeo, 30.03.2006, pp. 10-18 [hereinafter de la Torre *et al.*, *Innovative Experiences in Access to Finance*].

In describing the criteria of access this chapter draws on the above papers.

<sup>3</sup> See Chidzero, Ellis and Kumar, *Indicators of Access to Finance*, n 1 above, p. 4.

There are many different reasons why the poor do not have access to finance—loans, savings accounts, insurance services. Social and physical distance from the formal financial system may matter. The poor may not have anybody in their social network who knows the various services that are available to them.

Lack of education may make it difficult for them to overcome problems with filling out loan applications, and the small number of transactions they are likely to undertake may make the loan officers think it is not worthwhile to help them.

As financial institutions are likely to be in richer neighborhoods, physical distance may also matter; banks simply may not be near the poor. Specifically for access to credit services, there are two important problems.

**First, the poor have no collateral**, and cannot borrow against their future income because they tend not to have steady jobs or income streams to keep track of. **Second, dealing with small transactions is costly for the financial institutions.** Ceilings on the rates financial institutions can charge backfire and limit access to the poor even more.

Microfinance—specialized institutions that serve the poor—tries to overcome these problems in innovative ways. Loan officers come from similar social status as the borrowers and go to the poor instead of waiting for the poor to come to them. Microcredit also involves education as much as it provides credit. Group lending schemes not only improve repayment incentives and monitoring through peer pressure, but they are also a way of building support networks and educating borrowers.

### Barriers of Access to finance

#### *i. Constraints relating to financial institutions*

Explanations of the lack of access to/usage of finance fall into two broad categories: (a) financial institutions' specific constraints and (b) barriers arising from the overall institutional environment prevailing in each country. The following access/usage barriers may be regarded as constraints relating to financial institutions: (a) access exclusion, (b) condition/product exclusion, (d) marketing exclusion: with some people effectively excluded by marketing and sales targets, (e) cultural exclusion due to ethnic and class biases, (f) self-exclusion: some

persons do not seek to obtain financial services in the belief that their application would be refused.

Access exclusion may be the result of many factors. For instance, through risk screening banks may consider some households and firms as less attractive customers and are, therefore, not willing to extend financial services to them. This is an especially strong barrier as poor customers are not usually able to provide collateral, which could be used for risk mitigation. In addition, access exclusion may be due to difficulties to provide physical infrastructure in rural areas or limited security of cash transfers.

Condition/product exclusion means that there is a lack of products that suit the needs of the poor or of small firms. Households and firms in developing countries may seek financing or insurance for specific purposes (major life events such as marriage, health or specific crop insurance), for which contracts are difficult to design. Firms may be underserved for the same reasons. Small firms seek different products than large enterprises, as are, for instance, payment services for small amounts. Thus, banks may not consider small firms as sufficiently attractive clients. Moreover, if the size of the market is such as to be difficult to develop/reap economies of scale, it becomes unprofitable for financial institutions to offer new products specifically for that market.

Cost/price exclusion may also be due to a variety of reasons. High transaction costs for small volumes are often mentioned as constraining financial services providers from broadening access. Small borrowers need to borrow frequently and repay in small installments. They consequently do not want financial products with high per unit costs, yet for banking institutions the costs per transaction are often similar regardless of the size of each transaction. The fixed costs of financial intermediation make the provision of financial services to small clients and in small markets very hard, even if specialization and increasing volume absorb some of this cost. Furthermore, high minimum deposits, the high administrative burden of applying for and maintaining an account, and account/transaction fees may deter financial households from entering the financial system. Obtaining a loan can be an especially cumbersome and costly process for the poor, taking into account the small size of the loan applied for, the high fixed costs of such application, and the potentially high rejection rates, given the absence of collateral.

Finally, formal financial services provision may entail other, non-pecuniary barriers, such as requiring (greater) literacy. In such cases, households and firms will not seek

financial services from formal financial institutions and will instead opt for informal sources of finance, such as family and friends. For instance, people wanting to transmit payments to their relatives, whether domestic or international, may rely on informal networks, although at higher costs. This is most obvious in the transmission of international remittances, where unit costs can be very high when informal mechanisms are used.<sup>4</sup> Yet, these informal mechanisms are often preferred due to non-pecuniary barriers. This lack of demand is also a powerful explanation of why usage is not universal: many households and firms may not use financial services, although they do have access to some financial services.

ii. *Institutional Constraints: Institutions Matter*

In environments with weak legal institutions, contract writing and enforcement is difficult and publicly available information scarce. As a result, agency problems tend to be mitigated through arrangements between private parties that rely heavily on personalized relationships, fixed (preferably real estate) collateral, and group monitoring. Provision of collateral secures repayment, as it aligns better the incentives lenders and borrowers.<sup>5</sup> However, in an environment where collateral repossession is unduly cumbersome, opacity is high, accounting rules are unreliable, and asset markets are illiquid, formal financial institutions will only accept fixed collateral, preferably real estate, which the poor usually will not be able to provide. Even group monitoring, a device frequently used by MFIs to mitigate agency problems, is not a perfect substitute in an environment of weak institutions in spreading the use of financial services to the poor. While the potential for implicit side-contracts among group members, who have lower costs of information with regard to their fellow-members, and the effective enforcement of social sanctions between group members, raises repayment rates, it also encourages group members to exclude the risky ones from participating. Such exclusion inevitably restricts the broadening of access, since group selection favours the more creditworthy.<sup>6</sup>

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<sup>4</sup> Tova Maria Solo, John Caskey, Clemente Durán, 'The Unbanked in Mexico and the USA: Five Questions Addressed', World Bank, Swarthmore College, Universidad Nacional Autónoma de México (2004) mimeo.

<sup>5</sup> de la Torre *et al.*, *Innovative Experiences in Access to Finance*, n 2 above, pp. 10-14.

<sup>6</sup> Morduch, *The Microfinance Promise*.



Furthermore, there is ample empirical evidence on the importance of institutional barriers in the financing of small firms.<sup>7</sup> Evidently, small firms and firms in countries with poor institutions use less external finance, especially less bank finance. It also appears that substitutes to bank finance are imperfect. For example, small firms do not use disproportionately more leasing or trade finance compared to larger firms. Thus, the existence of a high quality institutional environment increases external financing of small firms significantly more than that of large firms. A strong institutional framework mitigates agency problems through a high quality contractual environment. As a result, it reduces transaction costs and leads to more efficient markets due to increased competition.

Moreover, it is clear that certain regulations, such as minimum or maximum interest rate policies and lending restrictions, can hinder access to the banking system, as they make it hard for financial services providers to offer saving or lending instruments profitably. Similarly, bank account opening procedures can be complex, requiring among others proof of identity, address, or income. Many countries have customer identification requirements, so called 'Know Your Customer' rules, which limit their ability to offer simple banking products. Also, anti-money laundering and counter-terrorism financing legislation may provide rules that can adversely affect the provision of financial services. Other examples are costly or distortive rules that exhibit a gender bias. For instance, in some African countries permission from the male household head is necessary for the female member of the household to open a bank account.

#### What can governments do to promote access?

First and foremost, governments can further access by making and encouraging infrastructure improvements. However, prioritizing different reform efforts is important and recent research also suggests that in low-income countries improving information infrastructures seems to yield more immediate access benefits than legal reforms (Djankov, McLeish, and Shleifer, 2007). But legal reforms are also important, and among those there is evidence that while

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<sup>7</sup> Thorsten Beck, Asli Demirgüç-Kunt, and Vojislav Maksimovic, 'Financial and Legal Constraints to Firm Growth: Does Size Matter?' (2005) 60 *Journal of Finance* 137.

protection of property rights against the state is more important for financial development generally, other aspects of contract enforcement (such as institutions relating to collateral) may be more important for access.

Institutional reform is a long-term process and specific policy actions can help boost access sooner. There are a wide range of such measures, ranging from specific legislation to underpin nonblank intermediation including leasing and factoring. For example, at the household level, giving each individual a national identification number and creating credit registries where lenders share information about their clients' repayment records would help since all borrowers could then borrow using their future access to credit as collateral. Reducing costs of registering and repossessing collateral is also crucial. In Brazil for example, inability to repossess property has contributed to the cost of the housing finance program, keeping the mortgage rates too high to be affordable for the poor.

Government regulation can also help. Removal of interest ceilings, or usury laws, would allow institutions to charge the rates that they need to be profitable and improve access. These regulations end up hurting the very poor they are trying to protect as the supply of these services completely dry up. Anti-predatory lending and truth-in-lending requirements are also very important since households may also be forced into over-borrowing by unscrupulous lenders. Anti-discrimination policies may also help against cases of active or passive discrimination against the poor or different ethnic groups.

It is also important to ensure that other complex regulations—such as Basel II regulations that are intended to help banks minimize costly bank failures—do not inadvertently penalize small borrowers and hurt access by failing to make full allowance for the potential for a portfolio of SME loans to achieve risk pooling. Financial regulations can also prevent the emergence of institutions better suited to the needs of lower-income households or smaller firms. Rigid chartering rules, high capital adequacy requirements, and very strict accounting requirements may reduce the ability of institutions to serve the poorer segments of the society. As many households are interested in savings services but not in credit services, considering and regulating savings mobilization separately from credit services may be helpful (Claessens, 2005). For example in South Africa, extension of bank regulation and supervision to microfinance institutions reduced their capacity to offer their services profitably.

Finally, governments can improve access by increasing competition in the financial sector. Beck, Levine, and Levkov (2008) find that policies in the United States that increase bank competition and bank efficiency disproportionately help the poor and reduce income inequality. Beck, Demirgüç-Kunt, and Levine (2007) similarly find that better-developed financial systems reduce income inequality by helping the poor in a cross-country study.

Indeed, Levine, Levkov, and Rubinstein (2008) show that greater competition in banking that intensifies economy-wide competition tends to reduce the effects of racial discrimination, disproportionately helping disadvantaged groups. The impact of competition in the financial sector may work to improve resource allocation through many mechanisms.

Also, foreign banks' role in improving the competition environment and improving access is important. There is accumulating evidence that over time, foreign banks can enhance access. Indeed, multinational banks have been leading the way in expanding access all around the world.

## **B.2 The Link Between Finance and Growth: Evidence from Empirical Studies**

The link between finance and growth and the (causality) between the two has been rigorously tested using various variables and methodologies also industry-level and firm-level data have also been brought to bear on the question of whether financial development promotes economic growth. By circumventing weaknesses with cross-country and panel studies, the microeconomic research seeks to resolve causality issues and to document in greater detail the mechanisms, if any, through which finance influences economic growth. (ADC & Levine)

### *2.1 Shareholder & Creditor rights*

La Porta, Lopez-de-Silanes, Shleifer, and Vishny (LLSV, 1998) measured legal origin as instrumental variables. In particular, LLSV showed that legal origin—whether a country's commercial/company law derives from British, French, German, or Scandinavian law—importantly shapes national approaches to laws concerning creditors and the efficiency with which those laws are enforced. Since finance is based on contracts, legal origins that produce laws that protect the rights of external investors and enforce those rights effectively will do a correspondingly better job at promoting financial development. Indeed, LLSV trace the effect of legal origin to laws and enforcement and then to the development of financial intermediaries. whether a country's commercial/company law derives from British, French, German, or Scandinavian law—importantly shapes national

approaches to laws concerning creditors and the efficiency with which those laws are enforced.

Since finance is based on contracts, legal origins that produce laws that protect the **rights of external investors** and **enforce those rights effectively** will do a correspondingly better job at promoting financial development. Indeed, LLSV trace the effect of legal origin to laws and enforcement and then to the development of financial intermediaries. The findings and methodology of LLSV are strongly contested.

### *B.2.2 Level of Financial Intermediation*

In using instrumental variables, Levine, Loayza, and Beck (2000) and Beck, Levine, and Loayza (2000) also develop a new measure of overall financial development. The new measure, Private Credit, equals the value of credits by financial intermediaries to the private sector divided by GDP. The measure (i) isolates credit issued to the private sector; (ii) excludes credit issued to governments, government agencies, and public enterprises; and (iii) excludes credits issued by central banks. Unlike the LZ Bank Credit measure, Private Credit includes credits issued by financial intermediaries that are not classified as deposit money banks by the International Monetary Fund.

Beck, Levine, and Loayza (2000) find a very strong connection between the exogenous component of financial intermediary development and long-run economic growth when using cross-country instrumental variables. They also show that the exogenous component of financial development is linked with both capital accumulation and productivity growth.

### *B.2.3 Stock Markets, Banks, and Growth*

Rousseau and Wachtel (2000) extend the Levine and Zervos (1998) study of stock markets, banks, and growth to a panel context. They use annual data and the panel difference estimator proposed by Arellano and Bond (1991). Thus, they jointly study the impact of bank and equity markets on economic growth.

Beck and Levine (2002) build on Rousseau and Wachtel (2000). Beck and Levine (i) use data averaged over five-year periods to abstract from business cycle fluctuations, (ii) employ more recent panel procedures that avoid biases

associated with difference, and (iii) extend the sample through 1998, which mitigates the potential effect of the Asian stock market boom in the 1990s on the results.

Beck and Levine (2002) find that stock market capitalization is not closely associated with growth, which confirms the earlier results by Levine and Zervos (1998). Thus, 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 matters.

The results of most relevant studies suggest that the exogenous component of both bank and stock market development have an economically large impact on economic growth. Future works needs to clarify the economic impact of stock market development on economic growth.

#### *B.2.4 Industry-Level Studies*

The link between finance and growth and the (causality) between the two has been rigorously tested using also industry-level and firm-level data. By circumventing weaknesses with cross-country and panel studies, the microeconomic research seeks to resolve causality issues and to document in greater detail the mechanisms, if any, through which finance influences economic growth. (ADC & Levine)

Rajan and Zingales (henceforth RZ, 1998) use industry-level data to study the mechanisms through which financial development may influence economic growth and to deal rigorously with causality issues. They argue that better-developed financial systems ameliorate market frictions that make it difficult for firms to obtain external finance. Thus, industries that are naturally heavy users of external finance should benefit disproportionately more from greater financial development than industries that are not naturally heavy users of external finance. If researchers can identify those industries that rely heavily on external finance in an economy with few market frictions — that is, “naturally heavy users” of external finance—then this establishes a natural test: Do industries that are naturally heavy users of external finance grow faster in economies with better developed financial systems? If they do, then this supports the view that financial development spurs growth by facilitating the flow of external finance.

RZ use data on 36 industries across 41 countries. To measure financial

development, RZ examine (i) total capitalization, which equals the summation of stock market capitalization and domestic credit as a share of GDP, and (ii) accounting standards. As RZ discuss, there are problems with these measures. Stock market capitalization does not capture the actual amount of capital raised in equity markets. RZ use the accounting standards measure as a positive signal of the ease with which firms can raise external funds, while noting that it is not a direct measure external financing. Beck and Levine (2000) confirm the RZ findings using alternative measures of financial development.

**The conclusion of RZ studies is that financial development has a big impact on industrial growth by facilitating external finance.**

#### *B.2.5 Firm-Level Studies*

Demirgüç-Kunt and Maksimovic (DM, 1998) use firm-level data and test whether financial development influences the degree to which firms are constrained from investing in profitable growth opportunities. They focus on the use of long-term debt and external equity in funding firm growth. As in RZ, DM focuses on a particular mechanism through which finance influences growth: does greater financial development remove impediments to firm growth?

In contrast to RZ, DM estimate the external financing needs of each individual firm in the sample.

Questioning the assumptions underlying RZ, DM argue that it is important to allow for differences in the amount of external financing needed by firms in the same industry in different countries. These differences may arise because firms in different countries employ different technologies, because profit rates may differ across countries, or because investment opportunities and demand may differ.

To control for differences in the need for external finance at the firm-level, DM calculate the rate at which each firm can grow using (i) only its internal funds and (ii) only its internal funds and short-term borrowing. They then compute the percentage of firms that grow at rates that exceed each of these two DM find that both banking system development and stock market liquidity are positively associated with the excess growth of firms. Thus, in countries with high Turnover and high Bank Assets/GDP a larger proportion of firms is growing at a level that requires access to external sources of long-term capital, holding other things constant.

Consistent with Levine and Zervos (1998), the size of the domestic stock markets is not related to the excess growth of firms. After conducting a wide array of robustness checks,

DM conclude that the proportion of firms that grow at rates exceeding the rate at which each firm can grow with only retained earnings and short-term borrowing is positively associated with stock market liquidity and banking system size.

### **B. 3. FSD and Poverty**

#### *B.3.1 Access to Finance and Poverty Eradication*

It is certain that the availability of financial services has a direct impact on poverty at the micro level, primarily by affecting the ability of poor people to accumulate usefully large lump sums—whether for life cycle, emergency or opportunity investment purposes.<sup>8</sup> Thus, access to credit, insurance and savings facilities can reduce the vulnerability of the poor to a number of external shocks, including bad harvests or health difficulties. The mobilisation of savings also creates an opportunity for re-lending the collected funds into the community strengthening community ties.

At the household level, lack of access to credit is shown to perpetuate poverty because poor households reduce their children's education (Jacoby, 1994; Jacoby and Skoufias, 1997). Similarly, Dehejia and Gatti (2005) find that child labor rates are higher in countries with underdeveloped financial systems, while Beegle, Dehejia, and Gatti (2007) show that transitory income shocks lead to greater increases in child labor in countries with poorly functioning financial systems.

Furthermore, availability of finance has special importance for poor households and smaller firms in a number of other ways. For instance, availability of credit can strengthen the productive assets of the poor by enabling them to invest in productivity-enhancing new 'technologies' such as new and better seeds, work equipment, or fertilizers etc., or to invest in education and health, all of which may be difficult to finance out of regular household income, but which could provide for a higher income in future. The availability of credit can also be an important factor in the creation or expansion of small businesses, thus generating self- and wage-employment and increasing incomes. Eswaran and Kotwal have argued that just the knowledge that credit will be available to cushion consumption against income shocks, should a potentially profitable but risky investment turn out badly, can make the household more willing to adopt more risky technologies.<sup>9</sup> Such behaviour will lead to

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<sup>8</sup> Daniel C Hardy, Paul Holden, and Vassili Prokopenko, 'Microfinance Institutions and Public Policy', IMF Working Paper 02/159, 2002.

<sup>9</sup> Mukesh Eswaran and Ashok Yeshwant Kotwal, 'Implications of Credit Constraints for Risk Behaviour in Less Developed Economies' (1990) *Oxford Economic Papers* 473.

increased use of modern technologies boosting productivity, and hence enhance income. For the same reason, access to credit and other financial services is likely to decrease the proportion of low-risk, low-return assets held by poor households for precautionary purposes (such as jewels), and enable them to invest in potentially higher risk and higher return assets, (such as education, or a rickshaw), with serious long-term income enhancing results.<sup>10</sup> Similar are the results of the availability of insurance for the poor,<sup>11</sup> as it protects them from financial vulnerability due to external shocks such as an illness or a bad harvest.

Remittances from abroad and domestic transfers are also an important source of income for the poor and provide an additional means for them to diversify their sources of income, reducing thus their financial vulnerability. The use of financial services leads to lower costs in this area, more secure and rapid transfers, and easier access to transferred funds, all of which present significant benefits to poor recipients. So, though the scale may be different (*e.g.*, investing in a new tool rather than a new factory), the same channels through which the financial sector can increase overall growth (*e.g.*, savings mobilisation, risk management, facilitation of transactions) also serve to reduce poverty, though for the poor there may be more emphasis on reducing vulnerability and risk.

At the macro level, finance may have an impact on poverty both directly, by raising the income of the poor and making more equal income distribution, and indirectly by stimulating overall economic growth. Cross-country studies on the link between finance and poverty studies have examined the reverse causality between availability of finance and poverty and found that financial development caused smaller income inequality.<sup>12</sup> Clarke, Xu, and Zou in their 2003 paper find that inequality decreases as finance develops and, the more concentrated income is the higher the country's level of poverty. The fact that finance helps to distribute income opportunities more evenly becomes a significant factor in poverty

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<sup>10</sup> Angus Deaton, 'Saving and Liquidity Constraints' (1991) 59 *Econometrica* 1221.

<sup>11</sup> See on the importance of micro- insurance for poverty alleviation Jonathan Morduch, 'Microinsurance: The Next Revolution?' New York University, mimeo, 2003.

<sup>12</sup> Thorsten Beck, Asli Demirguc-Kunt, and Ross Levine, 'Finance, Inequality and Poverty: Cross-Country Evidence', World Bank Policy Research Working Paper 3338, June 2004. See also Stijn Claessens and Enrico Perotti, 'The Links between Finance and Inequality: Channels and Evidence', May 2005, background paper for the 2005 World Development Report, World Bank, University of Amsterdam.



reduction. In the same mode, Beck, Demirgüç-Kunt and Levine, using a broad cross-country sample, have shown that financial development not only raises disproportionately the income of the poor reducing income inequality, but also that countries with better-developed financial intermediaries experience faster declines in poverty and income inequality.

Beyond (the largely unmeasured) direct impact of access to/usage of financial services on poverty, the indirect impact of FSD on poverty is certain through its impact on growth. For instance, as economic production is changing and countries are liberalizing their real economies, it has become clearer that the degree of financial development greatly influences the ability of countries, firms and individuals to make use of (new) growth opportunities. However, the poor in developing countries often do not have access to a continuous and formal stream of financial services, and are forced to rely instead on a narrow range of often expensive and more risky informal services. In addition, the availability of finance has, as mentioned above, a disproportionate effect on the growth opportunities of SMEs. Beck, Demirgüç-Kunt and Levine have shown that, while large SME sectors are characteristic of successful economies, SMEs do not 'cause' growth, nor do SMEs alleviate poverty or decrease income inequality.<sup>13</sup> Yet, finance accelerates growth by removing constraints on small firms, more so than on large firms. Finance allows SMEs to operate on a larger scale and helps leveling the playing field among firms in terms of financing opportunities.<sup>14</sup>

Finally, access to finance may become a good agent of economic and social change that improves governance structures decreasing some of the causes of poverty. Recently, two leading economists: Raghuram Rajan and Luigi Zingales, who have endorsed the Schumpeterian view of creative destruction, suggested that access to finance through, *inter alia*, free and open capital markets, is the only means to erode the power of incumbent elites.<sup>15</sup> Normally, such elites have a vested interest to push back economic growth, which would entail the empowerment of the disenfranchised parts of society (normally its biggest part), and thus the erosion of their privileges. An even more realistic path for the facilitation

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<sup>13</sup> Thorsten Beck, Asli Demirgüç-Kunt, and Ross Levine, 'SMEs, Growth, and Poverty: Cross-Country Evidence' (2005) 10 *Journal of Economic Growth* 197.

<sup>14</sup> Claessens, *Access to Financial Services*, n 2 above, p. 4.

<sup>15</sup> Raghuram Rajan and Luigi Zingales, *Saving Capitalism from the Capitalists* (New York: Princeton University Press, 2004, 1<sup>st</sup> ed. Random House, 2003).

of access to finance for the disenfranchised is the provision of credit and of other financial services to poor households and micro-entrepreneurs.

### 3.2 *Has Microfinance Fulfilled its Promise?*

Development of microfinance around the world has been very non-uniform, with significant penetration rates only in a few countries like Bangladesh, Indonesia, and Thailand (Honohan, 2004). Group lending is very costly since labor cost per dollar of transactions needs to be high by design.

The most controversial aspect of microfinance, however, has been the extent of subsidy required to provide this access. Overall, the microfinance sector remains heavily grant and subsidy dependent. Skeptics question whether microfinance is the best way to provide those subsidies and point out that development of mainstream finance is a more promising way to reach the poor and alleviate poverty in significant ways (World Bank, 2007).

### **Reading**

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