

Financing Firms in India*

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Abstract

We examine financing channels and governance mechanisms among various types of firms in India, and compare them to those from other countries studied in existing literature. Despite its English common-law origin, strong legal protection provided by the law and a democratic government, corruption within India’s legal system and government significantly weakens investor protection in practice. External financing of firms has been dominated by non-market sources of financing, while the characteristics of listed firms are similar to those from countries with weak investor protection. Our evidence, including results based on a survey of private firms in the Small Scale Industries (SSI) sector, shows that alternative financing channels provides the most important source of funds. We also find that informal governance mechanisms, such as those based on reputation, trust and relationships, are more important than formal mechanisms (e.g., courts) in resolving disputes, overcoming corruption and supporting growth.

Keywords: India, law and finance, institutions, informal mechanisms, SSI sector.

JEL Classifications: O5; K0; G0

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We examine financing channels and governance mechanisms among various types of firms in India, and compare them to those from other countries studied in existing literature. Despite its English common-law origin, strong legal protection provided by the law and a democratic government, corruption within India's legal system and government significantly weakens investor protection in practice. External financing of firms has been dominated by non-market sources of financing, while the characteristics of listed firms are similar to those from countries with weak investor protection. Our evidence, including results based on a survey of private firms in the Small Scale Industries (SSI) sector, shows that alternative financing channels provides the most important source of funds. We also find that informal governance mechanisms, such as those based on reputation, trust and relationships, are more important than formal mechanisms (e.g., courts) in resolving disputes, overcoming corruption and supporting growth.

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I. Introduction

Understanding mechanisms that contribute to sustainable long-term growth at firm-, industry- and country-levels has long been one of the central missions for economists. Based on large samples of cross-country studies, the law and finance literature (pioneered by La Porta, Lopez-de-Silanes, Shleifer, and Vishny; LLSV hereafter) finds that stronger legal protection of investors is associated with more efficient institutions and better financial and economic ‘outcomes’.¹ However, time series evidence on financial development has challenged some of the correlations documented by LLSV (e.g., Rajan and Zingales 2003a), while the cost of improving the legal system can be prohibitively high for emerging countries.² On the other hand, proponents of institutional development argue that a country’s institutions, in particular, those restraining the government and powerful elites, determine the country’s long-run economic growth (e.g., Rajan and Zingales 2003b; Acemoglu and Johnson 2005).³

In a recent paper, Allen, Qian and Qian (2005, hereafter AQQ) demonstrate that China provides a significant counterexample to the findings in the law, institutions, finance and growth literature. Despite its poor legal and financial systems and a corrupt and autocratic government, China has one of the largest and fastest growing economies. Moreover, AQQ document that alternative financing channels and informal governance mechanisms have substituted for formal channels and mechanisms to support corporate as well as overall economic growth in China.⁴

In this paper, we examine the second largest emerging economy in the world, India. At the end of 2004, with a population of almost 1.1 billion (second largest behind China), India already has

¹ LLSV (1998) find that countries with the English common-law origin provide the strongest legal protection to both shareholders and creditors, while countries with the French civil-law origin provide the weakest.

² For example, Djankov, McLiesh, and Shleifer (2005) find that, despite apparent significant economic benefits from reform, there is very little time variation of creditor rights over the past twenty-five years around the globe.

³ Also see Acemoglu, Johnson, and Robinson (2001, 2002) for the role of endowment of colonial countries and the “institutional reversal” caused by the European expansion (15th to 19th century) in determining long-run growth paths.

⁴ The literature on economies of transition (from Socialist, central planning systems to market-based economies) also documents the important role of alternative mechanisms in promoting the development of markets and institutions (e.g., McMillan, 1997; McMillan and Woodruff, 2002).

the world's fourth largest economy measured in Purchasing Power Parity (PPP) terms. During the period of 1990 to 2002, India's GDP (in PPP terms) had an annual growth rate of over 7%, one of the highest in the world. We focus on the financing channels and governance mechanisms of various types of firms in India. With India's English common-law origin, the legal protection of investors provided by the law is one of the strongest in the world. However, widespread corruption within India's legal system and government significantly weakens legal protection in practice. We find that formal external financing for firms has been dominated by non-market sources of funds in India, while listed firms behave more like those from countries with weak investor protection. Our evidence, including results based on a survey of private firms in the Small Scale Industries (SSI) Sector, demonstrates that alternative financing channels provides the most important source of funds. Our survey evidence also shows that entrepreneurs and investors rely more on informal governance mechanisms, such as those based on reputation, trust and relationships, than formal mechanisms to resolve disputes, overcome corruption and finance corporate growth.

Our results, along with the findings of AQQ (2005) on China, illustrate that, alternative financing channels and informal governance mechanisms, rather than legal protection and institutions (e.g., lack of government corruption) documented in most of the existing literature, have supported the growth of non-government firms in these two countries. Given the status of these two countries, these findings have important implications: As of 2004, they have a combined population of 40% of the entire world, and their combined GDPs (in PPP terms) are almost as large as that of the U.S. and equal to 19% of the world total. More research is required to better understand whether similar "substitute" mechanisms that have worked well in China and India have also supported the growth of firms in other economies where formal mechanisms are not available.

Using measures from the existing literature, we first find that India, a long-time British colony, has the best investor protection on paper. India has a *perfect* score on the Creditor Rights

index (4 out of 4),⁵ and scores 5 out of 6 for the Anti-Director Rights index, the *highest* among more than 100 countries studied in Djankov, La Porta, Lopez-de-Silanes, and Shleifer (2005; hereafter DLLS). Moreover, India has had a British-style judicial system and a democratic government for a long time. However, wide-spread government corruption and overburdened courts lead to poor legal protection in practice.⁶ Perhaps not surprisingly, despite the fact that India's stock market is ranked fourteenth in the world (in terms of total market capitalization in 2004), it has not played a dominant role in resource allocation and providing external financing to firms. External financing through financial markets (equity and bond) has been dominated by banking and alternative sources, although the size and importance of the stock markets in the economy have grown significantly in recent years. Since the deregulation and financial liberalizations in the early 1990s, the entry and competition from non-state owned banks (including foreign banks) have stimulated the growth of the banking sector, which has maintained a low level of non-performing loans (NPLs hereafter) and a high level of efficiency in part due to stringent lending standards.

We next separately examine financing channels, corporate governance, and the growth of three groups of firms. First, the importance of the *state sector* (state-owned firms) in the economy has been decreasing relative to non-state sectors, even though as a group state-owned firms have been growing at comparable rates as non-state sectors. Second, our empirical results on *listed firms* of the non-state sector are based on a sample of more than 850 (manufacturing and non-manufacturing firms over the period 1995 - 2004). We find that the equity ownership is highly concentrated within the founder's family and/or the controlling shareholder, while cross-holding of shares among corporations is also observed. These findings are similar to those of other Asian countries (e.g., Claessens, Djankov, and Lang 2000; Claessens, Fan, Djankov, and Lang 2002).

⁵ This score was revised from 4/4 in LLSV (1998), which was based on the Company's Act (1956), to 2/4 in Djankov, McLiesh, and Shleifer (2005), which was based on the Sick Industrial Companies Act (1985).

⁶ DLLS (2005) construct the Anti-self-dealing index (control of corporate insiders) for more than 100 countries. India's score of 0.55 (out of 1) is lower than the average (0.67) of English common-law countries.

When compared to listed firms studied in LLSV (2000b, 2002), both the dividend ratio and firm value of Indian firms are much lower compared to similar firms operating in countries with strong investor protection, but similar to those listed firms in countries with weak protection.

More interesting results are found for the *non-state, non-listed* firms, and in particular, firms in the SSI sector. It is important to emphasize at the outset that our definition of the SSI sector includes both manufacturing and non-manufacturing firms (e.g., services and technology industries). This sector has grown faster than the rest of the economy during the past fifteen years, while the financing of this sector is clearly different from the state and listed firms. Due to the lack of firm-level data, our evidence, by necessity, is mainly based on a survey of 76 entrepreneurs and executives of firms located in and around the southern Indian city of Hyderabad. (We have also conducted a similar survey among SSI firms in the Delhi-Gurgaon area in *northern* India; results from 50 firms will be incorporated into the paper by the end of March 2006). Our survey firms operate in manufacturing industries, with firms ranging in age from less than a year to 38 years.

Not surprisingly, in about 70% of the firms surveyed, the largest owner is the founder's family, while almost 52% of firms have *unlimited* liability. When asked how the owners (with unlimited liability) would protect their personal assets in case of business failure, all 40 respondents without any exception would negotiate with lenders for an extension, while only 8 respondents said they would also file personal bankruptcy. The two most important financing channels for these firms during their start-up and growth periods are founders' family and friends and loans from financial intermediaries, including state-owned banks, banks specialized in lending to the SME firms (e.g. the Small Industry Development Bank of India, or SIDBI, and State Financial Corporations, or SFCs), and private credit agencies. However, credit availability is not uniform across the surveyed firms, and the market for bank credit is clearly relationship - driven. Over 70% of the respondents said that their firms had to meet operating/profitability criterion to obtain their largest loans, while

the median “monitoring” frequency of the banks (bank staff contacting borrower about the loan) is once per quarter.

We also find that informal governance mechanisms based on trust, reputation and relationships are much more important than legal remedies in resolving disputes and enforcing contracts. For example, when asked about the consequences of delay of (or non-)payments and breach of contracts, the respondents ranked loss of future business opportunities, reputation and personal assets and safety as main concerns, while fear of legal remedies was the least important. When asked who would be the best mediator for business disputes, close to two-thirds (64%) of the respondents specify “mutual friends and business partners” as their choice, while the second most popular choice (18% of respondents) is “going to courts.” When asked how a firm can ensure payments, over 40% of the respondents said they screen their business partners carefully so that such issues do not occur, while 35% said they would go to courts but would leave negotiation possibilities open. Finally, when asked about government regulatory authorities (e.g., obtaining a license to start a business), our survey indicate corruption as part of doing business. The two most common methods are bribes and using friends of government officials.

Our paper extends the literature on law, institutions, finance, and growth. Many cross-country studies focus on one or two dimensions of a country’s legal and/or financial system, and in the process treat each country in their sample on an equal-weight basis. We might expect that, compared to large and diverse countries (e.g., India and China), small homogeneous countries (e.g., Singapore) could have more effective legal and financial institutions because they can be tailored to these countries’ needs at low costs.⁷ By contrast, this paper studies *all* aspects of the financial system in the second largest developing country, and finds that results based on existing cross-

⁷ Moreover, Stulz (2005) argues that there are limits to globalization, including the improvement of institutions, due to a “twin” agency problem of governments and corporate insiders in emerging countries.

country studies on the importance of legal protection and lack of government corruption, to a large degree, do not apply to India. Our methodologies and results thus complement those of cross-country studies, and can better advance the understanding of growth mechanisms.

We also utilize surveys to examine small firms, which is one of the most vibrant corporate sectors in India, where firm-level data is not available. Survey-based research has made significant contributions to the law, institutions, finance and growth literature.⁸ In particular, the World Bank has carried out a series of country- and firm-level surveys on the business environment in more than 80 countries, including both India and China (e.g., Cull and Xu 2005). Our survey differs from the World Bank surveys in two ways. First, the main goal of the World Bank surveys is to examine the degree of “convergence” of institutional development in emerging countries toward institutions in developed countries (in particular, the U.S.), while our goal is to uncover and analyze factors that can be effective for extended periods in supporting firm- and economy-wide growth. Second, our surveys provide the most comprehensive and detailed information on all the financing channels (standard and alternative) and governance mechanisms (formal and informal) at different stages of non-state, non-listed firms, which have been generally overlooked in the literature.

The rest of the paper is organized as follows. Section II provides background information on India, and Section III describes the size and growth of the different sectors of the Indian economy. In Section IV, we examine the financing patterns, valuation, and dividend policies of firms in the Listed Sector. Section V presents our survey results of Indian firms in the SSI sector. Finally, Section VI concludes. Appendix A contains the explanations of all the variables used in the paper.

⁸ For example, DLLS (2003) conduct worldwide surveys on the efficiency of judicial systems, while Johnson, McMillan, and Woodruff (2002) conduct firm-level surveys in economies of transition on property rights and finance.

II. India: An Overview

Home to the second largest population in the world (1.08 billion as of 2004), India currently has the fourth largest economy in PPP terms, and is closing in at the heels of the third largest economy, Japan. The largest democracy in the world with a press as free and vocal as anywhere else, it is relatively conservative in social mores by Western standards and considerably more so in rural areas where over 70% of the population resides. The birthplace of at least three major religions, India is replete with Buddhist, Islamic and Western influences though Hinduism is the dominant faith today. With 25 major languages and over a hundred dialects, India defies generalizations. An illiteracy rate of 35% co-exists with a crowd of information technology professionals and a young English-speaking urban workforce competing for service sector jobs with their U.S. counterparts. Despite its rising economic might, a third of its population languishes in terrible poverty. In short, India is as large and diverse as any other country in the world. Table 1-A provides a snapshot of India's socio-economic conditions.

II.1 The Indian Economy – A Historical Perspective

At independence from the British in 1947, India inherited one of the world's poorest economies (the manufacturing sector accounted for only one tenth of the national product), but also one with arguably the best formal financial markets in the developing world. It had four functioning stock exchanges (the oldest one predating the Tokyo Stock Exchange) with clearly defined rules governing listing, trading and settlements; a well-developed equity culture if only among the urban rich; and a banking system with well-developed lending norms and recovery procedures. In terms of corporate laws and financial system, India emerged far better endowed than most other erstwhile colonies. The 1956 Indian Companies Act, as well as other laws governing the functioning of joint-stock companies and protecting the investors' rights, were built on this foundation.

Corporate development in India had begun with the managing agency system. It led to more

dispersed equity ownership but also gave rise to the practice of management enjoying control rights disproportionately greater than their stock ownership.⁹ India's turn towards socialism after independence put in place a regime and culture of licensing, protection and widespread red-tape that bred corruption and stilted the growth of corporate sectors. Heavy industries and strategic sectors were off-limits for private enterprise – the state had to control the “commanding heights” of the economy. Two rounds of nationalization brought about 90% of the banking sector under government control. On the other hand, to promote employment as well as to pay homage to Mahatma Gandhi's vision of village self-sufficiency, India restricted several areas for the “small scale sector”, where individual businesses could not grow beyond a certain size. Formal non-state enterprises, such as joint-stock corporations, were severely restricted to a middle area between these two sectors, subject to the “License Raj” where government permission was required for an unending and ever-increasing list of business decisions. Corruption, nepotism and inefficiency became the hallmarks of the Indian corporate sectors. Exorbitant tax rates encouraged creative accounting practices and complicated compensation structures designed to beat the system.

The economy reached the end of this road in 1990-91 with a severe balance of payments crisis, threatening a default in India's foreign debt payments. While some reforms (more “business-friendly”) had begun in the early and mid-1980s, this crisis, and the conditions imposed by the IMF assistance package that followed, ushered in an era of reforms. As in many other countries around the globe, this constituted deregulation, liberalization of the external sector and partial privatization of some of the state sector enterprises. In many ways the reforms that started in 1991 have transformed the economy through the twin forces of globalization and competition.

For over three decades after independence, India grew at an average rate of 3.5% (infamously

⁹ The Managing Agency System was a corporate governance system that existed in British India, where the Board of Directors would hire a "Managing Agency" to run the company. These agencies often ran companies in various industries and practically controlled massive conglomerates. The system was abolished in 1970.

labeled “the Hindu rate of growth”) and then accelerated to an average of about 5.6% since the 1980’s. Table 1-B compares the GDP of the largest eight emerging economies as well as growth rates in the period of 1990-2002. As of 2002, India had the second largest economy (in PPP terms) within the group, with its GDP about half of that of China, the largest emerging economy, and twice as large as that of Brazil, the next largest economy. Moreover, the recent growth rate has been above 7%, second highest among the group of emerging economies.

Over half of India’s GDP is generated in the services sector, while manufacturing (agriculture) produces about 30% (20%) of GDP. In terms of employment, however, agriculture accounts for about two-thirds of the labor force, indicating both poor productivity and widespread underemployment. Over 90% of the half a billion plus workforce labors in the “unorganized sector”, i.e. non-registered businesses (public or private firms in all industries; *India Stat*).

II.2 Law, Institutions and Business Environment

The most striking fact about India’s legal system is the difference between protection of investors *by law* as opposed to protection *in practice*. Table 2 (panels A through E) compares India’s scores relative to the world, different legal-origin country groups, and other emerging markets on several different dimensions of law and institutions. As discussed above, with the English common-law system, India has strong protection of investors “on paper”: The scores on both creditor rights (Table 2-B, with a score of 4/4 in LLSV (1998), based on the Company’s Act of 1956, to 2/4 in Djankov et al. (2005), based on the Sick Industrial Companies Act of 1985) and shareholder rights (5/6 in Table 2-C) are the highest of any country in the world.

Tables 2-D and 2-E compare law (and contract) enforcement in India and other countries based on similar comparisons in LLSV (1998). While India’s government corruption measure (4.58/10, based on International Country Risk guide’s data during the period of 1982-1995) is significantly below LLSV sample average, the efficiency of India’s judicial system (8/10, based on

Business International Corp.'s data between 1980 and 1983) is actually high compared to other emerging countries. Since these measures are dated they do not accurately capture the current protection of investors in India. In its survey of investment climates around the world, the World Bank found that corruption was the number one constraint for firms in South Asia.¹⁰ According to the 2004 survey (for its annual Corruption Perception index) conducted by Transparency International, India has a score of 2.8 out of 10 (the lower the score, the greater the corruption) and ranked 90 out of 145 countries (with the range being 1.5 to 9.7). Another survey by the same organization, "Corruption in South Asia in 2002" found that the two most corrupt public institutions identified by the respondents in India (as well as in most countries in South Asia) were the police and the judiciary.¹¹

As for the business environment in India, a recent World Bank survey found that, among the top ten obstacles to Indian businesses, the three which the firms surveyed considered to be a "major" or "very severe" obstacle and exceeding the world average are corruption (the most important problem), availability of electricity, and labor regulations. Threat of nationalization or direct government intervention in business is no longer a major issue in India. With rampant tax evasion, the shadow economy in India is significant. It is estimated to be about 23% of GDP.¹² In keeping with its socialist moorings during the first three decades after independence, India created a panoply of laws as well as government departments to monitor and control the private sector on the one hand, and to promote and finance small enterprises through government assistance on the other. Creditor and investor rights were largely unprotected in practice, with banks having little bargaining power against willful defaulters. Large corporate houses often got away with default, or got poor projects

¹⁰ See World Bank, *World Development Report 2005: A Better Investment Climate for Everyone*.

¹¹ For more information, go to the website of Transparency International (http://www.transparency.org/pressreleases_archive/2002/dnld/south_asia_report.pdf).

¹² This figure is 22.4% according to Schneider and Enste (2000), and 23.1% by Schneider (2002) (World Bank). Popular perception, however, would put it significantly larger, particularly given that the average figure of OECD countries themselves is about 12%.

financed through the state-owned banking sector, often by using connections with influential politicians and bureaucrats.

To summarize, we believe the results based on more recent surveys and studies more accurately describe the status of India's legal system than those from Tables 2-D and 2-E. Despite strong protection provided by the law, legal protection is considerably weakened in practice due to an inefficient judicial system, characterized by overburdened courts, slow judicial process, and widespread corruption within the legal system and government.

II.3 The Financial Sector

Despite the history of India's stock markets and large number of listed firms, the size and role in terms of allocating resources of the markets are dominated by those of the banking sector, similar to many other emerging economies. From Table 3-A, total bank deposits (of over \$385 billion dollars) account for 50% of GDP in 2003, and constitute three-quarters of the country's total financial assets. The efficiency of the banking sector, measured by the concentration and overhead costs, is way ahead of world average. On the other hand, total capitalization of the stock market is 34% of GDP, while the size of the (private) corporate bond market is miniscule.

In Table 3-B we compare India's financial system (2003 figures) to those of the LLSV-sample countries (LLSV, 1997a, 1998), using measures from Levine (2002). In terms of the size (bank private credit over GDP), India's banking sector is much smaller than the (value-weighted) average of LLSV sample countries, even though its efficiency (overhead cost as fraction of total banking assets) compares favorably to most countries. The size of India's stock market, measured by the total market capitalization as fraction of GDP, is actually slightly larger than that of the banking sector, although this figure is still below the LLSV average. However, in terms of "total value traded," a better measure than "market capitalization" because it measures the "floating

supply” of the market, India’s stock market is only half of its banking sector.¹³ “Structure activity” and “Structure size” measure whether a financial system is dominated by the market or banks. India’s activity (size) figure is below (above) even the average of English origin countries, suggesting that India has a market-dominated system; but this is mainly due to the small amount of bank private credit rather than the size of the stock market. In terms of relative efficiency (“Structure efficiency”) of the market vs. banks, India’s banks are much more efficient than the market (due to the low overhead cost), and this dominance is stronger for India than for the average level of LLSV countries. Finally, in terms of the development of the financial system, including both banks and markets, we find that India’s overall financial market size (“Finance activity” and “Finance size”) is smaller than the LLSV-sample average level, and is only higher than the French-origin countries’ average. Overall, based on the above evidence, we can conclude that both India’s stock market and banking sector are small relative to the size of its economy, and the financial system is dominated by an efficient but under utilized (in terms of lending to non-state sectors) banking sector.

Financial Markets

The number of India’s stock exchanges has grown from four at Independence (1947) to 23 today, but the equity markets were not important as a source of funding for the non-state sector until as recently as the early 1980s. Before then, the Indian capital markets were a closed club of brokers with few primary market offerings and little trade and marginal participation of the common public, a state of affairs caused mostly by the lack of transparency in Indian businesses and little protection of minority shareholders. The ratio of India’s market capitalization to GDP rose from about 3.5% in the early 1980’s to over 34% in 2003, which ranks 41st among 89 countries (Table 3-A, *World Bank*

¹³ We estimate that 45% of the total market capitalization of listed firms is actively traded in India, and hence a value traded/GDP ratio of 0.16. The float supply figure of 45% is based on our own calculation of free float adjustment factor of about 1,000 large firms listed on the BSE (small firms are less frequently traded than large firms).

Financial Structure Database). However, the situation has changed considerably since 2003. Since the middle of 2003 through the third quarter of 2005, Indian stock prices have appreciated rapidly, the popular Indian index, Sensex rising from about 3000 to over 8000 in a period of two years and a quarter (annualized growth rate of 49%).

In fact, as shown in Figure 1, the rise of the Indian equity market in this period allows investors to earn a higher return (“buy and hold return”) from investing in the Mumbai Stock Exchange (formerly the Bombay Stock Exchange, or BSE) Index than from investing in the S&P 500 Index and other indices in the U.K., China, and Japan during the period of 1992-2005. Many credit the continuing reforms and more or less steady growth as well as increasing foreign direct and portfolio investment in the country for this explosion in share values.¹⁴ India boasts the largest number of listed companies in the world – well over 10,000. At the end of March 2005, the market capitalization of BSE itself stood at about 55% of the Indian GDP (*Handbook of Indian Statistics*, Reserve Bank of India).

Table 3-C shows the comparative position of the two major Indian exchanges (the NYSE-type “floor exchange”, the BSE, and the Nasdaq-type electronic exchange, National Stock Exchange, (NSE)) vis-à-vis other major exchanges in the world. At the end of 2004, India (the two major exchanges combined, ignoring the other 21 local exchanges) was the 14th largest stock market in the world in terms of market capitalization, significantly ahead of China, which occupied the next position. Table 3-C also shows that trading in the Indian exchanges is among the most concentrated with the top 5% of companies (in terms of market capitalization) accounting for close to 80% of trades, consistent with our prior conclusion that the majority of shares in the *major* Indian markets

¹⁴ According to RBI’s *Handbook of Indian Statistics*, both foreign direct investment (to firms) and portfolio investment (stocks and bonds) have been growing fast during the past 15 years, with the latter twice the size of the former. The cumulative, total foreign investment inflows equals to 11.58% of GDP in 2005, as compared to 0.03% in 1990.

are not frequently traded.¹⁵

In 2004-05, non-government Indian companies raised about 2.7 billion USD from the market through the issue of common stock, and 378 million USD by selling bonds/debentures (no preferred shares were issued). Despite the size of the new issuance, Indian's financial markets, relative to the size of its economy and population, are much smaller than those in many other countries. Table 3-D presents a comparison of external markets (stock and bonds) in India and different country groups (by legal origin) using measures from LLSV (1997a). Figure 2 plots the size and depth of a country's external markets vs. the degree of protection of investors based on data in Table 3-D. The horizontal axis measures overall investor protection (protection provided by the law, rule of law, and government corruption) in each country, while the vertical axis measures the (relative) size and efficiency of that country's external markets.¹⁶ Most countries with English common-law systems (French civil-law systems) lie in the top-right region (bottom-left region) of the graph. India is located in the south-eastern region of the graph with relatively strong legal protection (in particular, protection provided by law) but relatively small financial markets.

Banking Sector

Over the decades, India's banking sector has grown steadily in size, measured in terms of total deposits, at a fairly uniform average annual growth rate of about 18%. There are about 100 commercial banks in operation with about 30 state owned banks, about 30 private sector banks and over 40 foreign banks. Still massively dominated by state-owned banks (they account for over 80% of deposits and assets), the years since liberalization have seen the emergence of new private sector

¹⁵ Morck et al. (2000) find that stock prices are more synchronous in emerging countries than in developed countries. They contribute this phenomenon to poor minority investor protection and imperfect regulation of markets in emerging markets. While stock prices in India co-move less frequently than those in China (one of the worst in the world), they are much more synchronous than those in the developed markets such as the U.S.

¹⁶ Following LLSV, the score on the horizontal axis is the sum of (overall) creditor rights, shareholder rights, rule of law, and government corruption. The score of the vertical axis indicates the distance of a country's overall external markets score (external cap/GNP, domestic firms/Pop, IPOs/Pop, Debt/GNP, and Log GNP) to the mean of all countries, with a positive (negative) figure indicating that this country's overall score is higher (lower) than the mean.

banks as well as the entry of several new foreign banks. This has resulted in a much lower concentration ratio in India than in other emerging economies (Table 3-A, and Demirgüç-Kunt and Levine 2001). Competition has clearly increased with the Herfindahl index (a measure of concentration) for advances and assets dropping by over 28% and about 20% respectively between 1991-1992 and 2000-2001 (Koeva 2003). Within a decade of its formation, a private bank, the ICICI Bank has become the second largest bank in India.

While the problem of NPLs does exist for some public sector banks (also a “new” private sector bank almost collapsed in 2003 when it was bailed out by merging with another bank), compared to most Asian countries the Indian banking system has done better in managing this problem. The “healthy” status of the Indian banking system is in part due to its high standards in selecting borrowers (in fact, many firms complained about the stringent standards and lack of sufficient funding), though there is some concern about “ever-greening” of loans to avoid being categorized as NPLs. Table 3-E provides comparative statistics on this issue. In terms of profitability as well, Indian banks have also performed well compared to the banking sector in other Asian economies, as the returns to bank assets and equity in Table 3-F convey.

We close this section by emphasizing three facts about the Indian society and economy. First, a large and diverse country, India has had recent success in its overall economic development. Second, despite strong investor protection purportedly provided by the law, actual protection is weak in India owing to the inefficiency of legal institutions and government corruption. Third, despite the development and growth of India’s financial system (both banking sector and markets), its size is small relative to the economy and its role of resource allocation and provider of external financing is expected to become much more significant in the near future.

III. Aggregate Evidence on India’s Corporate Sectors: Organization, Financing and Growth

Since Independence India has sought to follow a “mixed economy” model with co-existing state and non-state sectors. In reality, the next four decades saw the widening and strengthening of the state sector with simultaneous crippling of the non-state sectors through severe controls, including limits to investment and industrial licensing. During the last decade and a half of liberalization, initiated in 1992, the non-state sectors (comprising public and private firms) have gained some long-overdue momentum. In 2002, they accounted for 76% of GDP and 74% of gross domestic investments, and close to 588,000 non-government businesses in operation.

Before we compare the scale and growth of various sectors, some clarifications on the definitions of corporate sectors are in order. The state sector comprises of PSUs that are ultimately owned by the government. The Companies Act (1956) of India defines a ‘public’ company as a (non-state) company that has a minimum paid-up capital of Indian rupees (INR) 500,000 (US\$ 11,100) and more than 50 shareholders. A fraction of the 76,621 public companies (more than 10,000) are listed and publicly traded on one or more of the exchanges. The rest of the (smaller) registered companies with less than 50 shareholders are called ‘private’ companies. A focus of our paper is the SSI Sector.¹⁷ Largely to create greater employment since independence the government has sought to “protect” certain industries from large scale, capital intensive industry by erecting investment limits to define this sector. Certain industries are exclusively reserved for the SSI units. The official definition of an SSI unit in India is a (mostly) manufacturing enterprise that has investments in fixed assets in plant and machinery of less than INR 10 million (US\$ 222,000). Non-manufacturing small enterprises with less than INR 1 million (US\$ 22,000) investment in plant and machinery are classified as the Small Scale Service and Business Enterprises (SSSBE).

¹⁷ The importance of small private firms is hardly unique to India -- high-growth economies are typically marked by such a vibrant sector. Using a sample of 76 countries (India not included), Beck et al. (2005) find a strong association between the importance of small and medium enterprises (SMEs) and GDP per capita growth. However, while a large SME sector appears to be a characteristic of successful economies in their study, their data fail to establish that SMEs exert a causal impact on growth or poverty reduction.

Table 4 presents comparisons of state and non-state sectors during the period 1990-2002. Within the non-state sectors we focus on the sector of public and private companies (non-state corporations) and the SSI Sector. First, in terms of the size of the labor force, the SSI dominates the other sectors: The actual employment number is actually much larger than the 19.97 million reported in 2002-03, which does not include many (non-agriculture) firms and their employees in the unorganized sector (by definition, firms in the unorganized sector are not PUS, public or private companies). Second, in terms of the size and growth of the output of the sectors, we can see that all sectors have been growing fast during the period, while the annual growth rate of output in the SSI sector (9.8%) is higher than that of the state-sector (8.5%). We do not have aggregate data on the total output of all firms in the non-state sectors, but in terms of GDP produced in the state- vs (non-agriculture) non-state sector (not reported in table), the size of the state-sector has been one fifth of the non-state sectors during 1990-2002. In addition, among non-state sectors (not reported in the table), we find that firms operating in the services industries (e.g., commerce & hotels, community & business services) had surpassed traditional manufacturing industries (e.g., metals and chemicals) in terms of number and investments. Third, in terms of fund raising and investment, non-state sectors have also been growing faster than the state sector. During the 1990-2003 period, total paid-up capital (the actual amount that [investors have paid for the share capital](#)) in the state sector grew at annual rate of 3.37%, its share in the total declining from 73% to 28%. By contrast, paid-up capital in non-state corporations (including listed firms) has been growing at an annual rate of 21.51%.¹⁸

Tables 5-A and 5-B provide evidence on the sources of funds for non-financial Indian firms, based on the *Prowess* database of the Centre for Monitoring the Indian Economy (CMIE). Table 5-A provide average funding sources for different sectors during the 14-year period 1991-2004, while

¹⁸ Notice that the ongoing privatization process involves converting PSUs to non-state corporations (including publicly listed and traded companies). While the stated goal of the Industrial Policy Resolution of 1991 is to reduce government holdings in all PSUs to 26% (except for railways, defense and atomic energy sectors), privatization has proven to be a tough process politically, resulting in slow progress.

Table 5-B provides the evolution of these funding sources over time. The firm categories (among the firms in the non-state sectors) are not always mutually exclusive but rather they show the break-up between listed and unlisted and, in the small-scale sector, between manufacturing (SSI) and services (SSSBE) sectors.¹⁹

Table 5-A indicates that for all firms, as well as separately for firms in the state and non-state sectors, the most important source of funds is “internal sources” (e.g., retained earnings), accounting for over a third of all sources.²⁰ However, the most striking finding from the two tables is the importance of short-term financing through trade credit and other current liabilities, reflected in the “Others” category. Across all firm categories over the 14-year period, short-term sources on an average accounted for close to 30% of all sources of funds. The importance of this source increases dramatically in the small scale segment accounting for over half and almost two-thirds of all financing for the SSI and SSSBE sectors, respectively. Since many firms in the SSSBE sector are engaged in wholesale and retail trade, given the relative importance of current liabilities in these sectors, this finding is perhaps not too surprising.

The overall marginal debt-equity ratio, with debt equaling the sum of “debt” and “borrowing from banks or intermediaries” (part of this category may be short-term in nature) comes out to be approximately 1.5. Firms in the two small-scale sectors have negligible debt in their marginal capital structure. Firms in the state sector have the highest marginal leverage (over 1.8), followed by listed companies, unlisted companies, and small scale sector firms in that (expected) order. While there has been considerable temporal variation in the relative importance of individual sources of financing in the last decade and a half, the overall patterns noted above remain unaltered. Overall, the results shown in Tables 5-A and 5-B are largely consistent with the findings of Love et al.

¹⁹ CMIE is a Mumbai-based economic and business information and research organization. The *Prowess* database provides financial statements, ratio analysis, funds flows, product profiles, returns and risks on the stock markets, etc., of over 9,000 Indian companies.

²⁰ This proportion is more than 80% for non-financial, publicly traded corporations in the U.S.

(2004), who find evidence of stronger credit constraints for smaller (and younger) firms. Our results are also generally consistent with those from the Reserve Bank of India (RBI, 2005).²¹

The patterns above appear to suggest that external long-term finance has remained an important bottleneck in Indian industry, particularly for the SME sector. Recent studies by other researchers have found evidence of “under-lending” by Indian banks to the corporate sector. Under-lending is present when the marginal rupee lent to a borrower yields a higher marginal product than its interest cost. For example, Banerjee et al. (2004) estimate that, for profitable firms in India, the impact of bank credit on profit (elasticity of profit from loans) is 1.79. Given an average loan of Rs. 86,800 and mean profit of Rs. 36,700 in their sample, they estimate that an increase of Rs. 1,000 in lending causes an increase in annual profit of Rs. 756.13. This finding clearly indicates that companies can enhance profits by borrowing more from the banks. Banerjee and Duflo (2002) find that, even after six years of liberalization, bank credit was scarce while interest rates, though high by world standards, appeared to be under the equilibrium levels. It is a system-wide feature, indicating that companies cannot get adequate credit, not just from a single bank but from the banking system in general.

In many countries, the corporate sector of small private firms faces impediments to bank financing (see Voordeckers and Steijvers (2005) for the Belgian case), and depends heavily on short-term borrowing (see Soufani et al. (2005) for the situation in the U.K.). India perhaps presents a rather extreme example of this phenomenon. The Small and Medium Enterprises (SME; SSI is a subset of SME) sector in India is marked by a severe shortage of financing. About 50% of the respondents in a recent National Sample Survey Organization (NSSO) survey said that they faced an

²¹ Using financial reports of around 2,000 *public* companies, RBI finds that internal sources accounted for about 40% of total funds until 1999-2000, and then jumped to about 60%. They treat “provisions” as part of “internal sources”, while our data source, CMIE Prowess, includes it in “others” category. We also see a similar upward movement (in the “others” category from 2001-02 to 2002-03 in Table 5-B.

acute shortage of capital.²² The mean loan outstanding was less than 3% of gross fixed asset (at market prices). About 93% of SME units had no outstanding loans from banks or financial institutions. About half of the respondents in the NSSO survey without loans mentioned that getting a loan is very difficult. About half of the loans to this sector came from specialized central financial institutions like the Small Industry Development Bank of India (SIDBI) and state financial institutions (SFCs). The average annual credit flow to the SSI during the late 1990s hovered between USD 2.4 and 3.6 billion.

It is important to point out that, while formal financing (equity and public and private debt) remains scarce and costly for firms in India's SME sector (and in other emerging economies), informal and alternative financing sources can provide an effective (partial) substitute for formal channels and support the growth of these firms. In Section V below, we provide firm-level evidence on formal and informal financing channels based on our own surveys of firms in the SME/SSI sector. To summarize our findings in this section, with aggregate data (at industry-level) we first show that financing through internal and alternative channels provides the most important funding source for Indian firms. We also find that the growth of the non-state sectors, in particular, the SME/SSI sector, has been the most impressive among all firms in India.

IV. Evidence on ownership, financing, dividend, and valuations of listed firms

In this section, we focus on the publicly listed and traded companies in India, and examine their ownership structure, financing decisions, dividend policies and valuation. Our goal is to draw general conclusions on whether there are fundamental differences between Indian firms and firms studied in previous papers (e.g., LLS 1999; LLSV 1997a, 2000b, 2002).

Our initial sample of 1,395 listed firms (panel data set for the period 1995 to 2004) is

²² "The Indian SME Sector" – A report by India Development Foundation and Indicus Analytics (March 2004).

collected and compiled from the CMIE *Prowess* database (same database for Tables 5-A and 5-B above). There are four groups of listed firms in our sample.

1. Small manufacturing firms: SSI firms (definition in Section III);
2. Large manufacturing firms: non-SSI or NSSI firms;
3. Small non-manufacturing firms: SSSBE firms (definition in Section III);
4. Large non-manufacturing firms: non-SSSBF or NSSSBF firms.

For each group of firms, data on financials, market variables, and ownership patterns were collected. Due to missing data, our final sample for most of our empirical tests consists of 854 firms. We begin with the ownership patterns of Indian firms. Table 6-A compares the ownership structure of these firms to those from the LLS (1999) sample, which includes over 1,000 listed companies from 27 countries (India *not* included), and the AQQ (2005) sample, which includes 1,147 listed firms from China. In 80% of the 854 listed firms in India, the largest shareholder is the founder's family and/or the controlling shareholder (can be different from the founder). Since we do not have detailed information on the identities of all the largest shareholders of these firms (e.g., whether they belong to the same family or *a group* of a few unrelated blockholders), our figure (80%) may be biased. However, we are certain that the largest block of equity of these firms is *not* held by organizations, the government, or a large number of disperse shareholders.

Among 15% of the 854 firms, the largest shareholder is another corporation (or organization), and thus cross-holding is also a prevalent ownership pattern in India. Since we do not have detailed information on the ownership patterns of the corporate owners, we do not know whether the corporate owners themselves are widely held or not. However, given the fact that family (individual) ownership is prevalent among listed firms, it is reasonable to assume that these corporate owners are not widely held. Finally, only 1.76% of the 854 firms are widely held (i.e., no shareholder owns more than 10% of stocks).

Our findings on ownership structure of India's listed firms are similar to those of other Asian

countries (e.g., Claessens, Djankov, and Lang 2000; Claessens, Fan, Djankov, and Lang 2002; and AQQ 2005). The main result of LLS (1999) is that countries that protect minority shareholders poorly (strongly) tend to have more concentrated (dispersed) ownership. Our evidence on India contradict this hypothesis, in that despite India's strong investor protection (by law), its ownership structure is close to other Asian countries (with family ownership) and countries with weak investor protection. However, if we take into account India's weak law enforcement and inefficient institutions (e.g., using the self-dealing index in DLLS 2005) and the revised creditor rights score in Djankov et al. (2004), then observed ownership structure is by and large consistent with the prediction of DLLS (2005).

Table 6-B presents the summary statistics for a “snapshot” of the sample firms at the end of 2004. There are six panels, each presenting the summary statistics of one financial item for each group of sample firms. From Panel A, the average market cap of the full sample is US\$16.98 million (median is US\$ 0.84 million). Not surprisingly, the NSSI and NSSSBE firms are significantly larger than the SSI and SSSBE firms. Panels B to F present key financials such as earnings per share, net income, retained earnings, and external financing through seasoned equity offerings (SEOs) and long-term borrowings. For all firms in the sample, the retained earnings are very close to net income, implying high internal re-investment rates. Consistent with Tables 5-A and 5-B, retained earnings constitute a vital source of financing. Not surprisingly perhaps, among all listed firms, NSSI firms seem to have more access to SEO than other types of firms.

Table 6-C provides some evidence on financing sources at the firm level. The ratios for all the countries (except for China and India) in the table are taken from LLSV (1997a).²³ The ratio of market capitalization to sales for the full sample of Indian firms is 0.41, higher than the average of

²³ In LLSV (1997a), a ratio (e.g., market cap/sales) for a country is obtained by first finding the median of this ratio across firms within various industries, and then by taking the average of the medians across industries. We take the median of each group of countries in the same legal system. AQQ (2005) take the average (median) ratios of all listed firms. We take the same approach for Indian firms.

Scandinavian countries (0.37), but lower than the other LLSV groups. The ratio of market cap to cash flows, 3.03, is lower than the other LLSV groups, while the debt over cash flow ratio (3.53) is higher than any LLSV group of countries. Overall, it appears that the listed Indian companies rely less on external market or bank financing than their counterparts in LLSV countries. The SSI and SSSBE firms in India, on the other hand, have the lowest debt/cash flow ratio.

We next examine dividend policies and valuations of listed firms in India, and compare them to firms studied by LLSV (2000b, 2002).²⁴ Following the approach in LLSV (2000b, 2002), we use the summary statistical data from their papers in to create a “synthetic firm” for each country in their sample, and use our own data to create the synthetic firm for India. Table 7 explains the details of the approach and presents the regression results. First, LLSV (2002) find that firms in countries with poorer protection of outside shareholders tend to have a lower Tobin’s Q (market-to-book assets ratio). This result is confirmed with our “synthetic firm” approach: We find that both cash-flow rights and anti-director rights are positively correlated with firm valuations. Second, LLSV (2000b) argue that firms in countries with poorer protection of outside shareholders tend to have lower dividend ratios due to more severe agency problems. This result is consistent with our findings but the coefficients from our regressions are not statistically significant.

We then investigate whether India is an outlier among the countries studied in LLSV. From the last two rows of Table 7, the prediction errors of India’s synthetic firm are small for dividend/sales (0.11 vs. 2.16), but large for dividend/earnings (payout) ratio (13.15 vs. 11.84) and Tobin’s Q (0.75 vs. 0.32) compared to the standard errors of the regression residuals. Overall, based on the synthetic-firm approach, India generally fits in with LLSV’s (2000b, 2002) predictions.

In conclusion, our empirical analysis on the listed firms in India demonstrates that India does not conform precisely to LLSV’s predictions and findings on legal protection and firm

²⁴ LLSV (2002) examine Tobin’s Q of 539 firms in 27 wealthy economies and India is excluded. LLSV (2000) examine dividend policies of over 4,000 companies in 33 countries including India, but with only one Indian firm in the sample.

characteristics. However, considering that investor protection is poor in practice, our analysis is not inconsistent with the spirit of LLSV predictions. With English common-law origin and strong investor protection by law but not in practice, India's listed firms actually behave more like firms from countries with poor investor protection: The equity ownership of Indian firms is highly concentrated within the founder's family and/or the controlling shareholder; and they tend to pay lower dividend and have lower valuations compared to companies from countries with strong legal protection. These findings also indicate the importance of in-depth, within-country studies like ours, as firm-level findings in many important dimensions have been incomplete or sparse in most cross-country studies.

V. Survey evidence on law and finance in India's small industries sector

In order to go beyond reported statistics and understand better the business realities and financing decisions of small businesses in India (for which secondary information is difficult to come by), we conducted a survey of such enterprises. Our respondents comprised owners or top executives of 76 small businesses (all of which meet the Small Scale Industry/SSI definition) in and around the South Indian city of Hyderabad. Our sample spans several industries including engineering, chemicals, packaging and software. The firms range in age from new start-ups (less than a year old) to about 38-year old companies, with more or less continuous distribution of firms started in the 1975 - 2005 period.

Our survey revealed a number of interesting facts about the small-scale (SSI) sector in India. The difficulty in obtaining external funds from formal channels, a point we mentioned in Section III above, gets reinforced in these surveys. What is of perhaps of even greater interest is the role and importance of informal and alternative financing channels, as well as informal mechanisms in contract enforcement that characterizes the environment in which these firms function.

V.1 Survey design and administration

Our survey focuses on three broad areas: Corporate financing and investments, ownership, property rights and corporate governance, and product and input markets for the SME sector. Based on a careful review of survey-based papers in the law and finance area, including McMillan and Woodruff (1999), Johnson, McMillan and Woodruff (2002) and AQQ (2005), we developed the survey questionnaire with special attention to the important issues in the semi-formal environment of Indian SMEs, avoiding biases induced by the questionnaire and maximizing the response rate. The final version of the survey contained 36 questions (most with subparts) in four sections. The survey instrument is available at <http://www.prism.gatech.edu/India-survey.pdf>, while the raw survey results and tabulations are available from the authors upon request.

Given that the target of our survey are mostly small, private firms that are reluctant to reveal their key financial and business information, the response rate is likely to have been extremely low if we had followed the mailed questionnaire method to deliver the surveys. Consequently, we deployed researchers from the Center of Analytical Finance at the Indian School of Business, Hyderabad, and other field investigators to administer the questionnaire to each of the respondents in face-to-face interviews. Our final sample consists of 76 SSI units in and around the South Indian city of Hyderabad.²⁵ The major findings of our survey are presented and discussed below.

V.2 Financing an SSI unit

Figure 3 (Panels A and B) shows the relative importance of the various alternative sources of funds at the start-up and growth phases. Family and friends comprise the “extremely important” source of funds (contributing more than 50% financing) for an overwhelming majority (over 70%) of

²⁵ The firms were selected from several industrial parks in the Hyderabad area that provided industrially diversified clusters of firms. The clusters include the Patanchera and Jeedimetla Industrial Development Areas (IDAs), the Katedan Industrial Estate and the Bharat Heavy Electricals Ltd. (BHEL) Ancillary Industrial Estate at Ramachandrapuram. Interviews were conducted with the owners or top level executives of the 76 firms in the sample. On an average an interview took about 45 minutes to complete. However, given the diversity of the business practices among the surveyed firms, a number of questions in the survey did not generate 100% response.

the respondents in the start-up phase. Bank loans come next in importance, making up an “extremely important” source for 27% firms and a “very important” source (25% to 50%) for about 32% of the firms surveyed. The role of bank financing seems to be more important in our sample survey than in the NSSO survey discussed earlier in Section III. Nevertheless, the role of family connections is supreme. In the growth phase too, most firms (almost 70%) find family and friends to be the easiest and least expensive source of funds, while many find bank loans to be quite accessible as well. Internal funds constitute a crucial source of funds at the growth stage. 61% of the respondents said they invested between 75% and 100% of their net income in the business the first year they made reinvestments. Plowing back a large part of the profits seems to be the norm, with only 13% of the responding firms claiming to have made dividend (or dividend-like) payments in the past 5 years. The survey finding on earnings retention is consistent with aggregate data on the importance of internal sources of financing in Tables 5A and 5B and firm-level data in Table 6-B.

There are, however, some evident differences in credit availability within our sample. In the growth stage 19% (25%) found long (short) term bank debt to be costly and difficult to get. Clearly, not all firms have similar experience with bank credit. Among the 70 respondents who answered the query, 19% had no bank/financial institution credit, while 63% had loans from only one institution. Only 16% dealt with two banks or intermediaries, while only two respondents had loans from three institutions. Evidently, the market for bank credit is extremely “relationship-driven”, reducing the bargaining power of the businesses vis-à-vis banks. 88% of the surveyed businesses with loans had borrowed from one or more state-owned banks, while 20% had loans outstanding from the SIDBI or SFCs (State Finance Corporations), specialized public sector institutions set up to promote growth of small industries. While 15% had loans from private banks/trusts/private credit agencies, no business surveyed had any loans from foreign banks. State-owned banks and SIDBI/SFCs are also the preferred loan providers, with 79% of the respondents wanting to borrow from the state-owned

banks if possible and 7% wanting to borrow from the specialized institutions. Only one respondent expressed the desire to borrow from a foreign bank if it were possible.

Over 71% of the respondents said that they had to meet operating/profitability standards to obtain their largest loans. In terms of transaction costs in obtaining bank loans, 23% of the respondents had their loans approved in less than a month, 29% had to wait between 1 and 2 months, 31% had their loans approved between 2 to 3 months, and 18% had to wait even longer. The median loan approval time, therefore, is 1-2 months. As for bank monitoring of the borrower, 28% of the respondents said that bank staff contacted them on a monthly basis to check their performance. For 34% of firms, the contacts were on a quarterly basis, while 19% had the contacts once in six months or less frequently; 3% said bank staff were actively involved with their projects, while 7% said they had never been contacted by their banks after the loan was disbursed. Overall, the median monitoring of banks appears to be at the “once-a-quarter” level.

V.3 Ownership, investor protection and corporate governance

Our survey also throws light on the organization, ownership pattern, as well as investor protection and corporate governance mechanisms in small firms. In about 70% (53 out of the total 76) of the SSIs surveyed, the largest share block belonged to the founder and his (all firms in our sample had male founders) family. One company also had some foreign (including expatriate Indian) investment. The remaining 23 firms had their largest share block held among the founder (and his family) and unrelated partners (maximum 5 in our sample). Over half (39 out of 75) of the businesses had unlimited liability. When asked how the owner planned to protect personal assets in case of business failure, all 40 respondents who answered without exception preferred negotiating with debtors for an extension. Eight respondents planned to file for personal bankruptcy in addition. Clearly minority shareholding by unrelated people is not a practical proposition under these circumstances.

In terms of corporate governance, about 38% of all units surveyed that had non-owner CEOs (or equivalent), claimed that the CEOs enjoyed “little discretion” in their business decisions and had to consult the owners for most decisions. The proportion of CEOs with “no discretion” and “full discretion” were 32% and 16% respectively, while 21% indicated they had some to a lot of discretion and needed to consult the owners only in critical matters. Thus the median response was “little discretion”. Clearly there is not much separation between ownership and control in the small industries sector with the owner keeping a close watch over day-to-day functioning even with a hired CEO. When asked about the possibility of an outsider buying up a firm’s assets in case of bad management, 33% thought it was “somewhat likely”, with 22% considering it “very likely” and 45% “not likely”.

V.4 Law, institutions and business environment

The picture that emerges of the SSI sector from our surveys clearly indicates that the sector deals with widespread corruption and has little recourse to the legal system. Informal mechanisms based on trust, reciprocity and reputation play a much more important role than legal remedies in settling disputes and enforcing contracts. As for their dealings with the regulatory authorities, corruption is taken for granted.

Over 90% of the firms we surveyed needed a license to start a business, and about 45% of found obtaining the license a difficult process. In half of the latter cases the difficulty was caused by government officials. Payment of bribes was the most frequent complaint. When asked how they thought other firms dealt with such problems, 85% of the respondents who answered said bribes were regularly paid. The next most common response (about 23% of answering respondents) was using friends of government officials to negotiate for them. Clearly, networks and connections are of crucial importance in getting things done.

As for conducting day-to-day business, while the firms do not function beyond the pale of the

law, legal issues are far less important to them than the demands and responsibilities of the informal networks within which they exist and function. Figures 4-A and 4-B show the mean score (on a scale of 1-3) of the importance attributed to the various consequences of non-payment of dues and breach of contract respectively. Interestingly, in both types of violation, the fear of legal consequences is the least important concern. In the first case, the primary concern is loss of personal property, followed closely by loss of reputation and personal safety. Clearly, violation of the “unwritten rules” of the informal networks in which these businesses operate can result in serious penalties including physical harm, and they act as effective deterrents to outright dishonesty in business dealings. Reputation and trust are pivotal for survival and growth in this environment. In Figure 4-B, for instance, “loss of future business opportunity” was the most important concern, followed by loss of reputation.

Over 80% of the firms we surveyed did *not* have a regular legal adviser. When asked for a reason, over 86% of this set claimed they did not need lawyers as they knew all their business partners and could deal with them fairly. Clearly, the formal legal system takes a back seat while reputation, trust and informal personal relationships are the driving factors in screening counterparties to do business with. When asked who would be the most helpful entity to turn to for mediation in a business dispute or to enforce a contract, over half (64%) of the respondents chose “mutual friends or business partners”. Going to court and settling out of court with the help of legal advisers tied for the distant second choice (18%), indicating that the legal system, while not as effective as the informal mechanisms, is not altogether absent as an option. When asked what a firm does to ensure payment or repayment, over 41% (7 out of 17) replied that they screen their borrowers/clients so well that such issues do not arise, 35% (6) said they would go to court leaving negotiation possibilities open, while about 24% (4) asserted they would seize the defaulters’ personal assets themselves. Clearly, the courts, while not the most popular method of conflict resolution, do

have their utility as a negotiating tool.

The informal system, however, is not perfect in resolving disputes and has its costs. When asked whether in the past 3 years they experienced a breach of contract or non-payment with a supplier or major customer, about 42% of the respondents (30 out of 70) replied in the positive. When asked further what they did about it, half (15 out of 31) said they did nothing but continued the business relationships with the defaulting parties. One interpretation of this is that there is some insurance aspect of the relationship. Another is that the big and powerful can at times get away with violations. Unfortunately we cannot distinguish between these.

To summarize, the general image of the business environment of the SSI sector that appears from our survey is characterized by the presence of strong informal mechanisms. Family ties, reputation and trust are key elements in this segment. Legal remedies are not altogether absent, but are far less important than the rules of the networks in which they operate. Ownership and management are not effectively separated. External finance comes mostly in the form of bank loans, which again is characterized by “relationship banking”.

V.5 Discussion

In this section we discuss mechanisms supporting the growth of India’s small industries (SME/SSI) sectors. We believe the most important reason for the growth is the effectiveness of alternative financing channels and informal governance mechanisms. One of the most important informal mechanisms is reputation, trust and relationships. Greif (1989, 1993) argues that certain traders’ organizations in the eleventh century were able to overcome problems of asymmetric information and the lack of legal and contract enforcement mechanisms, because they had developed institutions based on reputation, implicit contractual relations, and coalitions. AQQ (2005) find that that informal mechanisms have supported the growth of China’s Private Sector, and influenced how firms raise funds and contract with investors and business partners. In addition, Greif (1994) and

Stulz and Williamson (2003) point out the importance of cultural and religious beliefs in the development of institutions, legal origin, and investor protection. These factors are of particular relevance and importance to India's institutional development. Despite the long British influence, India's own rich culture and history have as much, if not stronger, impact on businesses and investors and their mutual interactions. The importance of reputation, trust and relationships in India's corporate sectors is reflected in our survey evidence of the SSI sector, as well as in the software industry examined by Banerjee and Duflo (2000).

We find that other governance mechanisms have also helped the growth of Indian firms. First, Burkart, Panunzi, and Shleifer (2003) link the degree of separation of ownership and control to different legal environments, and show that family-run (professionally managed) firms will emerge as the dominant form of ownership structure in countries with weak (strong) minority shareholder protection. Our survey evidence on India's SSI and empirical results on the listed firms, along with evidence in other Asian countries, suggest that *family firms* are a norm in India and other Asian countries. In fact, the combination of family firms and reputation-based informal mechanism may be one of the important factors behind the success of many family and group-based (listed and unlisted) firms in India (e.g., Khanna and Palepu 2000; and Gopalan et al. 2005), as reputation concerns motivate all managers (affiliated with the founder's family) and member firms to take actions that maximize firm/group value, which in turn benefit non-controlling shareholders as well.

Second, Allen and Gale (2000a) show that, if cooperation among different suppliers of inputs is necessary and all suppliers benefit from the firm doing well, then a good equilibrium with no external governance is possible, as internal, mutual monitoring can ensure the optimal outcome. In Section III above, we presented evidence on the importance of trade credits as a form of financing for firms in wholesale and retail industries. Third, it is worth mentioning how entrepreneurs and investors alleviate/overcome problems associated with government corruption. According to

proponents of institutional development (e.g., Rajan and Zingales 2003b; Acemoglu and Johnson 2005), with poor institutions, weak government and powerful elites, India's long-run economic growth should be severely hindered.²⁶ However, our aggregate and disaggregate evidence shows that corruption has not hugely slowed down the growth of India's firms, in particular, firms in the SME/SSI sectors, where legal protection is perhaps weaker and problems of corruption worse compared to firms in other sectors. Perhaps one of the most effective solutions for corruption for firms in the SME/SSI sector is the common goal of sharing high prospective profits. This common goal can align interests of the investors and government officials with entrepreneurs and managers to overcome numerous obstacles. Under this common goal in a multi-period setting, implicit contractual agreements and reputation can act as enforcement mechanisms to ensure that all parties, including government officials, fulfill their roles to make the firm successful. Another potential effective solution for corruption is *competition* among local governments/bureaucrats from different regions within the same country. Entrepreneurs can move from region to region to find the most supportive government officials for their private firms, which in turn motivates officials to lend "helping hands" rather than "grabbing hands," or else there will be an outflow of profitable private businesses from the region.

Finally, in our surveys we do find that entrepreneurs and their business partners also rely to an extent on the legal system (e.g., courts) to resolve disputes and enforce contracts. Going forward it is possible that the legal system will play a more important role in supporting the further development of stock markets and attracting more foreign capital inflows. However, the costs of improving the legal system vary significantly across countries. With a small and homogenous economy, a country can adjust its legal and financial systems to the strengths of its economy more costlessly than a large country can. Djankov, McLiesh, and Shleifer (2005) find that, despite

²⁶ In addition, LLSV (1999) find that governments in countries with French or socialist origins have lower quality (in terms of supporting economic growth) than those with English common laws and richer countries.

apparent significant economic benefits from reform, there is very little time variation of creditor rights over the past twenty-five years around the globe. This suggests that the costs of improving the legal system are, in fact, very high for many countries. On the other hand, the success of India's SSI sector demonstrates that alternative mechanisms have substituted for formal mechanisms based on legal protection and supported the growth of non-state, non-listed firms in large and diversified economies such as India. It is possible that similar mechanisms/substitutes have also worked well in other countries, including developed countries (e.g., during their early stage of economic development when legal institutions were not as yet well developed).

VI. Summary and Conclusions

In this paper, we examine financing channels and governance mechanisms among various types of firms in India, and compare them to those in other countries. With one of the largest and fastest growing economies in the world, India is unique among the countries studied in the law, institutions, finance, and growth literature: Despite its English common-law origin, British-style judicial system and democratic government, corruption within the legal system and government weakens legal protection of investors in practice. Financing of firms has been dominated by internal and alternative sources of financing, while listed firms have concentrated ownership and low valuations and pay low dividends relative to firms from countries with strong legal protection.

More interestingly, our evidence, including results from firm surveys of small firms, demonstrates that alternative financing channels provide the most important source of funds for small- and medium-enterprises, the most successful sector in the Indian economy. We also find that entrepreneurs and investors rely more on informal governance mechanisms, such as those based on reputation, trust and relationships, than formal mechanisms (e.g., courts), to resolve disputes, overcome corruption and finance corporate growth. Our results call for more within-country studies

in other regions and countries if we seek to understand better how these informal mechanisms work where formal mechanisms are not available or work imperfectly.

Appendix A: Brief description of our variables and their sources

A.1. Creditor/Shareholder Rights Variables, (Tables 2-A, 2-B, 2-C, 2-D, and 2-E)

Variables	Description	Sources
Legal origin	Identifies the legal origin of the company law or commercial code of each country.	Reynolds & Flores (1989), LLSV (1997a)
One share-one vote	1) Equals one if ordinary shares carry one vote per share, and zero otherwise; 2) equals one, when the law prohibits the existence of both multiple-voting and nonvoting ordinary shares and does not allow firms to set a maximum number of votes per shareholder irrespective of the number of shares owned, and zero otherwise.	Company law or commercial code
Proxy by mail allowed	Equals one if shareholders can mail their proxy vote to the firm, and zero otherwise.	Company law or commercial code
Shares not blocked before meeting	Equals ones if firms cannot require shareholders to deposit their shares prior to a general shareholders' meeting (to prevent selling shares), and zero otherwise.	Company law or commercial code
Cumulative voting or proportional representation	Equals one if shareholders can cast all their votes for one candidate to the board of directors (cumulative voting) or a mechanism of proportional representation in the board by which minority interests may name a proportional number of directors to the board is allowed, and zero otherwise.	Company law or commercial code
Oppressed minorities mechanism	Equals one if minority shareholders have either a judicial venue to challenge the decisions of management or the assembly or the right to step out of the company by requiring the company to purchase their shares when they object to certain fundamental changes (e.g., mergers and asset dispositions); equals zero otherwise. Minority shareholders are defined as those shareholders who own 10% of shares or less.	Company law or commercial code
Preemptive rights	Equals one when grants shareholders the first opportunity to buy new issues of stock, and this right can be waived only by a shareholders' vote; equals zero otherwise.	Company law or commercial code
Percentage of share capital to call an extraordinary shareholders' meeting	The minimum percentage of ownership of share capital that entitles a shareholder to call for an extraordinary shareholders' meeting; ranges from 1% to 33%.	Company law or commercial code
Antidirector rights	The index is formed by adding one when: (1) the country allows shareholders to mail their proxy vote to the firm; (2) shareholders are not required to deposit their shares prior to the general shareholders' meeting; (3) cumulative voting or proportional representation of minorities in the board of directors is allowed; (4) an oppressed minorities mechanism is in place; (5) the minimum percentage of share capital that entitles a share- holder to call for an extraordinary shareholders' meeting is less than or equal to 10% (the sample median); or, (6) shareholders have preemptive rights that can be waived only by a shareholders' vote. The index ranges from zero to six.	Company law or commercial code
Mandatory dividend	Equals the percentage of net income that the company law or commercial code requires firms to distribute as dividends among ordinary stockholders. It equals zero for countries without such a restriction.	Company law or commercial code
Restrictions for going into reorganization	Equals one if the reorganization procedure imposes restrictions, such as creditors consent; equals zero otherwise.	Bankruptcy and reorganization laws
No automatic stay on secured assets	Equals one if the reorganization procedure does not impose an automatic stay on the assets of the firm on filing the reorganization	Bankruptcy and reorganization laws

	petition. Automatic stay prevents secured creditors from gaining possession of their security. It equals zero if such a restriction does exist in the law.	
Secured creditors first	Equals one if secured creditors are ranked first in the distribution of the proceeds that result from the disposition of the assets of a bankrupt firm. Equals zero if non-secured creditors, such as the government and workers, are given absolute priority.	Bankruptcy and reorganization laws
Management does not stay	Equals 1 when an official appointed by the court, or by the creditors, is responsible for the operation of the business during reorganization. Equivalently, this variable equals one if the debtor does not keep the administration of its property pending the resolution of the reorganization process. Equals zero otherwise.	Bankruptcy and reorganization laws
Creditor rights	An index aggregating different creditor rights. The index is formed by adding "one" when: (1) the country imposes restrictions, such as creditors' consent or minimum dividends to file for reorganization; (2) secured creditors are able to gain possession of their security once the reorganization petition has been approved (no automatic stay); (3) secured creditors are ranked <i>first</i> in the distribution of the proceeds that result from the disposition of the assets of a bankrupt firm; and, (4) the debtor does not retain the administration of its property pending the resolution of the reorganization. The index ranges from zero to four.	Bankruptcy and reorganization laws
Legal reserve requirement	The minimum percentage of total share capital mandated by corporate law to avoid the dissolution of an existing firm. It takes a value of zero for countries without such a restriction.	Company law or commercial code
Efficiency of judicial system	Assessment of the "efficiency and integrity of the legal environment as it affects business, particularly foreign firms" produced by the country risk rating agency Business International Corp. It "may be taken to represent investors' assessments of conditions in the country in question." Average between 1980 and 1983. Scale from zero to ten; with lower scores, lower efficiency levels.	Business International Corp.
Rule of law	Assessment of the law and order tradition in the country produced by the international country risk rating agency, International Country Risk (ICR). Average of the months of April and October of the monthly index between 1982 and 1995. Scale from zero to ten, with lower scores for less tradition for law and order (we changed the scale from its original range going from zero to six).	International Country Risk Guide
Corruption	ICR's assessment of the corruption in government. Lower scores indicate that "high government officials are likely to demand special payments" and "illegal payments are generally expected throughout lower levels of government" in the form of "bribes connected with import and export licenses, tax assessment, policy protection, etc." Average of the months of April and October of the monthly index between 1982 and 1995. Scale from zero to ten, with lower scores for higher levels of corruption (we changed the scale from its original" range going from zero to six).	International Country Risk Guide
Risk of expropriation	ICR's assessment of the risk of "outright confiscation "or "forced nationalization." Average of the months of April and October of the monthly index between 1982 and 1995. Scale from zero to ten, with lower scores for higher risks.	International Country Risk Guide
Repudiation of contracts by government	ICR's assessment of the "risk of a modification in a contract taking the form of a repudiation, postponement, or scaling down" due to "budget cut backs, indigenization pressure, a change in government, or a change in government economic and social priorities." Average of the months of April and October of the monthly index between 1982 and 1995. Scale from zero to ten, with lower scores for higher risks.	International Country Risk Guide

Accounting standards	Index created by examining and rating companies' 1990 annual reports on their inclusion or omission of 90 items. These items fall into seven categories (general information, income statements, balance sheets, funds flow statement, accounting standards, stock data, and special items). A minimum of three companies in each country was studied. The companies represent a cross-section of various industry groups; industrial companies represented 70%, and financial companies represented the remaining 30%.	International accounting and auditing trends, Center for International Financial Analysis and Research
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Secondary source: LLSV(1997a, 1998)

A.2. Financial System Variables, (Tables 3-B and 3-C)

Variables	Definition	Original Source
Bank Credit	Ratio of total credit deposited into banks from private sectors /GDP.	IFS, WDI, and country specific publications
(Total) value traded	Ratio of domestic equity traded on domestic exchanges /GDP.	IFS, WDI, EMFB, and country specific publications
Market capitalization	Ratio of domestic equities listed on domestic exchanges/GDP.	Int'l Financial Statistics (IFS), World Development Indicators (WDI), Emerging Markets Factbook (EMFB), and country specific publications
Overhead cost	Overhead cost divided by total bank system assets.	Levine's calculations (2002)
Structure- size	Log(Market capitalization/Bank credit); measure size of markets and banks.	Levine (2002)
Structure-activity	Log(Value traded/Bank credit); measure size/trading volume of markets and banks.	Levine (2002)
Structure-efficiency	Log(Market capitalization ratio \times Overhead cost ratio); measures relative efficiency of markets vs. banks.	Levine (2002)
Structure regulation	Sum of the four categories in regulatory restriction.	National regulatory authorities
Regulatory restriction	The degree to which commercial banks are allowed to engage in security, firm operation, insurance, and real estate: 1- unrestricted; 2-permit to conduct through subsidiary; 3-full range not permitted in subsidiaries; and 4-strictly prohibited.	National regulatory authorities
Finance-size	Log (Market capitalization ratio \times Private credit ratio)	Levine (2002)
Finance-activity	Log (Total value traded ratio \times Private credit ratio)	Levine (2002)
Finance-efficiency	Log (Total value traded ratio/Overhead cost)	Levine (2002)

Secondary source: Beck, Demirgüç-Kunt, and Levine (2002), and Levine (2002).

A.3. External Financing Variables, (Table 3-B and Figure 2)

Variable	Description	Sources
External cap / GNP	The ratio of the stock market capitalization held by minorities to GNP in 1994. The first variable is computed as the product of the aggregate stock market capitalization and the average percentage of common shares not owned by the top three shareholders in the ten largest nonfinancial, privately- owned domestic firms in a given country. A firm is considered privately owned if the State is not a known shareholder.	Moodys International, CIFAR, EXTEL, WorldScope, 20-Fs, PriceWaterhouse, and various country sources
Domestic firms / Pop	Ratio of the number of domestic firms listed in a given country to its population (in millions) in 1994.	Emerging Market Factbook and World Development Report (WDR) 1996.
IPOs/Pop	Ratio of the number of initial public offerings of equity in a given country to its population (in millions) for the period 1995:7-1996:6.	SDC, AsiaMoney, LatinFinance, GT Guide to World Equity Markets, and WDR 1996.
Debt/GNP	Ratio of the sum of bank debt of the private sector and outstanding nonfinancial bonds to GNP in 1994, or last available.	International Financial Statistics, World Bondmarket Factbook. WDR 1995.
GDP growth	Average annual percent growth of per capita gross domestic product for the period 1970-1993.	
Market cap/ sales	The median ratio of the stock market capitalization held by minorities to sales in 1994 for all nonfinancial firms in a given country on the WorldScope database. Firm's stock market capitalization held by minorities is computed as the product of the stock market capitalization of the firm and the average percentage of common shares not owned by the top three shareholders in the ten largest nonfinancial, privately owned domestic firms in a given country. A firm is considered privately owned if the State is not a known shareholder in it.	WorldScope.
Market cap/ cash-flow	The median ratio of the stock market capitalization held by minorities to cash flow in 1994 for all nonfinancial firms in a given country on the WorldScope database. The firm's stock market capitalization held by minorities is computed as the product of the stock market capitalization of the firm and the average percentage of common shares not owned by the top three shareholders in the ten largest nonfinancial, privately owned domestic firms in a given country. A firm is considered privately owned if the State is not a known shareholder in it.	WorldScope.
Debt/sales	Median of the total-debt-to-sales ratio in 1994 for all firms in a given country on the WorldScope database.	WorldScope.
Debt/cash flow	Median of the total-debt-to-cash-flow ratio for all firms in a given country on the WorldScope database.	WorldScope.

Secondary source: LLSV(1998), China details from Shanghai and Shen Zhen Stock exchanges, and firms' annual reports.

A.4. Definitions of different types of firms and banks in India

1. **Public Sector Undertakings (PSU):** Companies with federal and/or state government as the majority or sole shareholder. Includes partially privatized companies. Different from departmental undertakings like railways that are non-corporate in organizational structure. The government is the de facto owner, and they choose managers to run the firm.
2. **Small and Medium Enterprises (SME):** Firms with less than INR. 50 million (about USD 1.11 million) in plant and machinery at original cost. Includes the small industry (less than INR 10 million or (about USD 222,000) and the medium sector (INR. 10-50 million).
3. **Small Scale Industry (SSIs):** Firms with less than INR 10 million (about USD 222,000) in plant and machinery at original cost and (mostly) engaged in manufacturing activity.
4. **Small Scale Sector Business Enterprise (SSSBE):** Firms with less than INR 1 million (about \$22000) in plant and machinery at original cost and engaged in non-manufacturing activity.
5. **Non-SSI (NSSI):** A firm that is not an SSI.
6. **Non-SSSBE (NSSSBE):** A firm that is not an SSSBE
7. **Small Industry Development Bank of India (SIDBI):** Specialized financial institution (not a commercial bank) created by the government of India for financing and promoting growth in the small scale sector.
8. **State Finance Corporations (SFCs):** State-level government financial institutions (not commercial banks) for financing and promoting growth, often in the small scale sector.

References

1. Acemoglu, Daron, and Simon Johnson, 2005. "Unbundling Institutions," *Journal of Political Economy*, 113 (5), 949-995.
2. _____, _____, and James Robinson, 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review*, 91 (5), 1369-1401.
3. _____, _____, and _____, 2002. "Reversal of Fortune: Geography and Institutions in the Making of Modern World Income Distribution," *Quarterly Journal of Economics* 117, 1231-1294.
4. Allen, Franklin, and Douglas Gale, 2000a. *Comparing Financial Systems*, MIT Press, Cambridge, MA.
5. _____, and _____, 2000b. "Corporate Governance and Competition," in *Corporate Governance: Theoretical and Empirical Perspectives*, X. Vives eds., Cambridge University Press, London, 23-94.
6. _____, Jun Qian, and Meijun Qian, 2005. "Law, Finance, and Economic Growth in China," *Journal of Financial Economics* 77 (1), 57-116.
7. Banerjee, Abhijit V., and Esther Duflo, 2000. "Reputation Effects and the Limits of Contracting: A Study of the Indian Software Industry," *Quarterly Journal of Economics* 115(3), 989-1017.
8. _____, and _____, 2003. *Bank Finance in India*, Mimeo, MIT.
9. _____, Shawn Cole and Esther Duflo, 2004. "Banking Reform in India," in Bery, S. B. Bosworth and A. Panagariya, *India Policy Forum, Volume 1*. Washington, DC: National Council of Applied Economic Research; Brookings Institution, pp. 277-332.
10. Beck, Thorsten, Asli Demirguc-Kunt, and Ross Levine, 2003a. "Law, Endowments, and Finance," *Journal of Financial Economics*, 70 (2).
11. _____, _____, and _____, 2003b. "Law and Finance: Why Does Legal Origin Matter?" *Journal of Comparative Economics* 31 (4), 653-676.
12. _____, _____, and _____, 2005. "SMEs, Growth and Poverty: Cross-country Evidence," *Journal of Economic Growth* 10 (3), 199-229.
13. _____, and Ross Levine, 2002, "Industry Growth and Capital Allocation: Does Having a Market- or Bank-Based System Matter?" *Journal of Financial Economics* 60.
14. Botero, Juan, Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, 2004. "The Regulation of Labor," *Quarterly Journal of Economics* 119 (4), 1339-1382.
15. Burkart, Mike, Fausto Panunzi, and Andrei Shleifer, 2003. "Family Firms," *Journal of Finance* 58, 2167-2201.
16. Chakraborty, Debashis, 2004. "Small-Scale Industries - An Overview," in Debroy, Bibek & Laveesh Bhandari (Eds.), *Small-Scale Industry In India: Large Scale Exit Problems*, Academic Foundation, New Delhi.

17. Claessens, Stijn, Simeon Djankov, and Larry Lang, 2000. "The Separation of Ownership and Control in East Asian Corporations," *Journal of Financial Economics* 58, 81-112.
18. _____, _____, Joseph Fan, and Larry Lang, 2002. "Disentangling the Incentive and Entrenchment of Large Shareholdings," *Journal of Finance* 57 (6), 2741-2771.
19. Cull, Robert, and Colin Xu, 2005. "Institutions, Ownership Structure, and Finance: The Determinants of Profit Reinvestment among Chinese Firms," *Journal of Financial Economics* 77 (1), 117-146.
20. Debroy, Bibek and P D Kaushik eds., *Reforming the Labor Market*, Academic Foundation, New Delhi.
21. _____, Laveesh Bhandari (Ed), 2004. *Small-Scale Industry In India: Large Scale Exit Problems*, Academic Foundation, New Delhi.
22. Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, 2002. "The Regulation of Entry," *Quarterly Journal of Economics*, 117 (1), 1-37.
23. _____, _____, _____, and _____, 2003. "Courts," *Quarterly Journal of Economics*, 118 (2), 453-517.
24. _____, _____, _____, and _____, 2005. "The Law and Economics of Self-Dealing," working paper, Harvard University.
25. _____, Caralee McLiesh, and Andrei Shleifer, 2004. "Private Credit in 129 Countries," working paper, Harvard University.
26. Demirguc-Kunt, Asli, and Vojislav Maksimovic, 1998. "Law, finance, and firm growth," *Journal of Finance* 53 (6), 2107-37.
27. _____, and Ross Levine, 2002. *Financial Structure and Economic Growth: Cross-country Comparisons of Banks, Markets, and Development*, MIT Press, Cambridge, Massachusetts.
28. Glaeser, Edward, Simon Johnson, and Andrei Shleifer, 2001. "Coase vs. the Coasians," *Quarterly Journal of Economics*, 116.
29. Gopalan, Radhakrishnan, Vikram Nanda, and Amit Seru, 2005a. "Reputation and Spillovers: Evidence from Indian Business Groups," working paper, University of Michigan.
30. _____, _____, and _____, 2005b. "Do Business Groups Use Dividends to Fund Investment," working paper, University of Michigan.
31. Greif, Avner, 1989. "Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders," *Journal of Economic History* 49, 857-882.
32. _____, 1993. "Contract Enforceability and Economic Institutions in Early Trade: The Maghribi Traders' Coalition," *American Economic Review* 83 (3), 525-548.
33. _____, 1994. "Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies," *Journal of Political Economy* 102 (5), 912-950.
34. Hazra, Arnab Kumar, 2003. *The Law and Economics of Dispute Resolution in India*, Bookwell, New Delhi.
35. India Development Foundation and Indicus Analytics, 2004, "The Indian SME Sector" Report.

36. Johnson, Simon, John McMillan, and Christopher Woodruff, 2002. "Property Rights and Finance," *American Economic Review* 92, 1335-1356.
37. Khanna, Tarun, and Krishna Palepu (2000). "Is Group Affiliation Profitable in Emerging Markets? An Analysis of Diversified Indian Business Groups," *Journal of Finance* 55, 867-891.
38. ____, and Yishay Yafeh (2005). "Business Groups and Risk Sharing Around the World," *Journal of Business*, forthcoming.
39. La Porta, Rafael, Florencio Lopez-de-Silanes, Cristian Pop-Eleches, and Andrei Shleifer, 2004. "Judicial Checks and Balances," *Journal of Political Economy* 112 (2), 445-470.
40. ____, ____, and Andrei Shleifer, 1999. "Corporate Ownership Around the World," *Journal of Finance*, 54 (2), 471-517.
41. ____, ____, and ____, 2002. "Government Ownership of Banks," *Journal of Finance*, 57 (1), 265-302.
42. ____, ____, and ____, 2003. "What Works in Securities Laws?" Forthcoming, *Journal of Finance*.
43. ____, ____, ____, and Robert Vishny, 1997a. "Legal determinants of external finance," *Journal of Finance*, 52, 1131-1150.
44. ____, ____, ____, and ____, 1997b. "Trust in Large Organizations," *American Economic Review (proceedings issue)*, 87 (2), 333-338.
45. ____, ____, ____, and ____, 1998, "Law and Finance," *Journal of Political Economy*, 106, 1113-55.
46. ____, ____, ____, and ____, 1999, "The Quality of Government," *Journal of Law, Economics, and Organization*, 15 (1), 222-279.
47. ____, ____, ____, and ____, 2000a, "Investor protection and corporate governance," *Journal of Financial Economics*, 58 (1-2).
48. ____, ____, ____, and ____, 2000b, "Agency Problems and Dividend Policy Around the World," *Journal of Finance*, 55 (1), 1-34.
49. ____, ____, ____, and ____, 2002. "Investor Protection and Corporate Valuation," *Journal of Finance*, 57 (3), 1147-1170.
50. Levine, Ross, 1999. "Law, finance, and economic growth," *Journal of Financial Intermediation*, 8 (1-2), 36-67.
51. ____, 2002. "Bank-based or Market-based Financial Systems: Which is Better?" *Journal of Financial Intermediation*, 11, 1-30.
52. ____, and Sara Zervos, 1998. "Stock Market, Banks, and Economic Growth," *American Economic Review*, 88 (3), 537-558.
53. Little, I.M.D., D. Mazumdar, J.M. Page, 1987. *Small Manufacturing Enterprises: A Comparative Study of India and Other Economies*, Oxford University Press.
54. Love, Inessa, Maria Soledad, and Martinez Peria, 2004. "Firm Financing in India: Recent Trends and Patterns," working paper, World Bank.

55. McKinnon, Ronald, 1973. *Money and Capital in Economic Development*, Brookings Institution Press.
56. McMillan, John, 1997. "Markets in transition," In Kreps, D., Wallis K. (Ed.) *Advances in Economics and Econometrics 2*, Cambridge: Cambridge University Press, pp.210-239.
57. _____, and Christopher Woodruff, 1999a. "Interfirm Relationships and Informal Credit in Vietnam," *Quarterly Journal of Economics*, 114, 1285-1320.
58. _____, and _____, 1999b. "Dispute Prevention without Courts in Vietnam," *Journal of Law, Economics, and Organization*, 15, 637-658.
59. _____, and _____, 2002. "The central role of entrepreneurs in transition economies," *Journal of Economic Perspectives* 16, 153-70.
60. Menon, N.R. Madhava and Bibek Debroy eds., 1995. *Legal Dimensions of Economic Reforms*. Allied Publishers, New Delhi.
61. Morck, Randall, Bernard Yeung, and Wayne Yu, 2000. "The Information Content of Stock Markets: Why do Emerging Markets Have Synchronous Stock Price Movement," *Journal of Financial Economics*, 58 (1), 215-260.
62. Posner, Richard A., 1973. *Economic Analysis of the Law*, Little-Brown, Boston, MA.
63. Rajan, Raghuram, and Luigi Zingales, 2003a. "The Great Reversals: The Politics of Financial Development in the Twentieth Century," *Journal of Financial Economics* 69, 5-50.
64. _____, and _____, 2003b. *Saving Capitalism from Capitalists: Unleashing the Power of Financial Markets to Create Wealth and Spread Opportunity*, Random House, New York.
65. Reserve Bank of India , 2005, "Performance of Private Corporate Sector in the Post Liberalization Period", *Reserve Bank of India Bulletin*, November
66. Rodrik, D. and A Subramanian, 2004. "From Hindu Growth to Productivity Surge: The Mystery of the Indian Growth Transition," Working Paper, Harvard University.
67. Schneider, F. and D. Enste, 2000, Shadow Economies: Sizes, Causes, and Consequences, *Journal of Economic Literature* 38 (1), 77-114.
68. _____, 2002. "Size and Measurement of The Informal Economy in 110 Countries around The World," World Bank.
69. Stulz, Rene, 2005. "The Limits of Financial Globalization," (Presidential address) *Journal of Finance* 60 (4), 1595-1638.
70. _____, and Rohan Williamson, 2003. "Culture, openness, and finance," *Journal of Financial Economics*, 70.
71. World Bank, 2005, *World Development Report 2005: A Better Investment Climate for Everyone*.

Table 1-A: A Socio-economic snapshot of India

		Year	India	World	
Development Indicators	Population	Millions	2004	1,079.7	6,345.1
		Avg. annual % growth	2000-2004	1.5	1.2
		Density people per sq. km	2004	363	49
	Gross national income (GNI)	Billions of dollars	2004	674.6	39,833.6
		Per capita dollars	2004	620	6,280
	GNI (PPP)	Billions of dollars	2004	3,347	55,584
		Per capita dollars	2004	3,100	8,760
	Gross domestic product per capita % growth	2003-2004	5.4	2.9	
	Life expectancy at birth (male; female)	2003	63; 64	65; 69	
	Under-5 mortality rate per 1000	2003	87	84	
	Adult literacy rate % of people 15 and above	1998-2004	61	82	
Carbon dioxide emissions Millions of tons	2000	1,070.9	22,994.5		
Poverty and Income Distributions	Population below \$1 a day %		1999-00	35.3	--
	Population below \$2 a day %			80.6	--
	Gini index		1999-00	0.33	--
	Percentage share of income or consumption	Lowest 20%		8.9	--
		Highest 20%		41.6	--
	Agricultural productivity (Agr. Value added per agricultural worker 2000 dollars)		2001-2003	397	817
			2000-2002	401	1,051
	Value added as % of GDP	Agricultural	2004	22	--
		Industry		26	--
		Services		52	--
	Household final cons. Expenditure % of GDP		2004	67	62
	General gov't final cons. expenditure % of GDP		2004	11	17
	Gross capital formation % of GDP		2004	23	21
External balance of goods and services % of GDP		2004	-1	0	
GDP implicit deflator Avg. annual % growth		2000-2004	3.9	--	
Trade, Aid and Finance	Merchandise trade	Exports: (Millions USD)	2004	72,530	9,122,837
		Imports: (Millions USD)		95,156	9,338,667
	Manufactured exports % of total merchandise exports		2003	77	77
	High technology exports % of manufactured exports		2003	5	18
	Current account balance (Million USD)		2004	6,853	--
	Net private capital flows (Million USD)		2003	10,651	--
	Foreign direct investment (Million USD)		2003	4,269	572,774
	Per Capita Official development assistance (USD)		2003	1	12
	External debt	Total Millions of dollars	2003	113,467	--
		Present value % of GNI	2003	19	--
	Domestic credit provided by banking sector (% of GDP)		2004	59.9	171.1

Source: World Bank (2005)

Table 1-B: India and other major emerging economies: GDP and growth

GDP in 2002*			GDP in 2002 on PPP basis**		Annual growth rate of GDP using PPP (1990-02)	
Rank	Country	GDP (US \$ bil.)	Country	GDP (Int'l \$ bil.)	Country	Growth rate (%)
1	China	1,237	China	5,732	China	11.3
2	Mexico (F)	637	India (E)	2,694	India (E)	7.1
3	India (E)	515	Brazil (F)	1,311	Pakistan (E)	5.7
4	Brazil (F)	452	Russia	1,141	Mexico (F)	4.3
5	Russia	346	Mexico (F)	878	Argentina (F)	4.0
6	South Africa(E)	104	South Africa (E)	441	Brazil (F)	4.0
7	Argentina (F)	102	Argentina (F)	401	South Africa (E)	3.5
8	Pakistan (E)	60	Pakistan (E)	291	Russia	-2.2

Notes: *=GDP figures are from the World Bank. "E" ("F") denotes the legal origin of the country as the English common-law system (French civil-law system).

**=Similar to Table 1-A, the PPP conversion factor is obtained from The World Bank Development Indicator (Table 5.6, World Bank. For details on how to calculate the indicator, see "Handbook of the International Program." United Nations, New York, 1992).

Table 2-A: India's position according to various measures of law and institutions

Index	India	World Average
Formalism in law index: ^a	3.51	3.58
Regulation of securities markets: ^b		
Disclosure Requirements	0.92	0.60
Liability Standard	0.66	0.47
Supervisor characteristics (Independence)	0.33	0.45
Rule-making power	0.50	0.66
Investigative powers	1.00	0.60
Orders to issuers, distributors, accountants	0.67	0.38
Criminal Sanctions	0.83	0.50
Public enforcement	0.67	0.52
Creditor rights and information sharing institutions: ^c		
Creditor Rights (0- 4 scale)	4 (2) ^c	1.79
Information Sharing institutions (binary: 0 or 1)	0	0.80
Shareholder rights and Self-dealing: ^d		
Anti-Director Rights (0 – 6 scale)	5	3.39
Anti-self-dealing Index (0 – 1, continuous)	0.55	0.46
Regulation of labor: ^e		
Employment laws index	0.44	0.49
Collective relations laws index	0.38	0.44
Social security laws index	0.40	0.57
Left of center political orientation (chief of largest party in congress, 1928-1995)	1.00	0.56
Investment climate indicators: ^f		
Starting a business – days (procedures)	89 (11)	50.8 (9.9)
Enforcing a contract – days (procedures)	425 (40)	388.3 (31.2)
Registering property – days (procedures)	67 (6)	81.4 (6.2)
Resolving insolvency – years	10	3.2
Investment profile (Country Risk)	8	8.8
Intensity of local competition	5.6	4.7
Transparency of government policymaking	4.1	3.9
Regional disparities of business environment	2.5	3.4

^a DLLS (2003); ^b LLS (2005a); ^c LLSV gave India a score of 4 out of 4 on creditor rights based on the Company Act (1956), while Djankov et al. (2004) lower this score to 2/4 based on the Sick Industrial Companies Act (1985) and assigned a score of 0 (out of 1) for information sharing agencies.

^d DLLS (2005a); ^e BDLLS (2004); ^f World Bank (2005).

Table 2-B. A comparison of creditor rights: China, India and LLSV countries

Country	English- origin average	French- origin average	German- origin average	Scandinavian -origin average	LLSV sample average	India
No automatic stay on assets	0.72	0.26	0.67	0.25	0.49	1
Secured creditors first paid	0.89	0.65	1	1	0.81	1
Restrictions for going into reorganization	0.72	0.42	0.33	0.75	0.55	1
Management does not stay in reorganization	0.78	0.26	0.33	0	0.45	1
(Overall) Creditor rights*	3.11 (53%) [#]	1.58 (14%) [#]	2.33 (0%) [#]	2 (0%) [#]	2.3 (25%) [#]	4 (2)**
Legal reserve required as % of capital	0.01	0.21	0.41	0.16	0.15	0.00

Notes: *=equals the sum of the scores of the four categories above, where 1 = Creditor protection is in the law, 0 otherwise. **: LLSV gave India a score of 4 out of 4 on creditor rights based on the Company Act (1956), while Djankov et al. (2004) lower this score to 2/4 based on the Sick Industrial Companies Act (1985);

[#]=numbers in the bracket indicate percentage of countries in the sub-sample (excluding India where applicable) whose measure is equal to **4** (India's measure).

Source: LLSV countries – LLSV (1998)

Table 2-C. A comparison of shareholder rights

Country	English- origin average	French- origin average	German- origin average	Scandinavian -origin average	LLSV sample average	India
Proxy by mail allowed	0.39	0.05	0	0.25	0.18	0
Shares not blocked before meeting	1	0.57	0.17	1	0.71	1
Cumulative voting/ Proportional representation	0.28	0.29	0.3	0	0.27	1
Oppressed minority	0.94	0.29	0.5	0	0.53	1
Preemptive right to new issue	0.44	0.62	0.33	0.75	0.53	1
Percentage of share capital to call an extraordinary shareholder meeting	0.09	0.15	0.05	0.1	0.11	0.1
Antidirector rights*	4 (35%) [#]	2.33 (05%) [#]	2.33 (0%) [#]	3 (0%) [#]	3 (15%) [#]	5
Mandatory dividend	0	0.11	0	0	0.05	0
One share – one vote	0.17	0.29	0.33	0	0.22	0

Notes: * is the sum of the scores on Rows (1), (2), (3), (4), (5) and (6), where score =1, when the protection is in the law; 0 otherwise. For Percentage of share capital to call an extraordinary shareholder meeting, score =1 if the percentage of share capital ≤ 10%, 0 otherwise. For the definitions of all other variables see Appendix A.1.

[#]=numbers in the bracket indicate percentage of countries in the sub-sample (excluding India where applicable) whose measure is higher or equal to **5** (India's measure).

Source: LLSV (1998)

Table 2-D. A Comparison of Law Enforcement

Country	English origin average	French-origin average	German origin average	Scandinavian origin average	LLSV sample average	India
Efficiency of judicial system	8.15	6.56	8.54	10	7.67	8.00
Rule of law	6.46	6.05	8.68	10	6.85	4.17
Corruption	7.06	5.84	8.03	10	6.90	4.58
Risk of expropriation	7.91	7.46	9.45	9.66	8.05	7.75
Risk of contract repudiation	7.41	6.84	9.47	9.44	7.58	6.11
Rating on accounting standards	69.62	51.17	62.67	74	60.93	57

Source: LLSV countries – LLSV (1998).

Table 2-E. A comparison of legal systems: India and other major emerging economies

	Efficiency of judicial system	Rule of law	Corruption	Anti-director rights	One share-one vote	Creditor rights	Accounting standards
India (E)	8	4.17	4.58	5	0	4 (2)	57
China	N/a	5	2	3	1	2	N/a
Pakistan (E)	5	3.03	2.98	4	1	4	N/a
S. Africa (E)	6	4.42	8.92	4	0	4	70
Argentina (F)	6	5.35	6.02	4	0	1	45
Brazil (F)	5.75	6.32	6.32	3	1	2	54
Mexico (F)	6	5.35	4.77	0	0	0	60

Source: China – International country risk (rating agency); all other countries – LLSV sources; “E” (“F”) denotes the legal origin of the country as the English common-law system (French civil-law system).

Table 3-A. Selected indicators of India’s financial structure in 2003

Measure of Financial Structure	India	World	Rank	N
Deposit money bank vs. central bank assets	0.96	0.82	59	165
Liquid liabilities to GDP	0.60	0.57	29	93
Central Bank Assets to GDP	0.03	0.07	47	99
Deposit Money Bank Assets to GDP	0.51	0.60	47	106
Private credit by deposit money banks to GDP	0.31	0.50	53	105
Bank deposits as a share of GDP	0.50	0.65	45	106
Financial system deposits as a share of GDP	0.50	0.66	46	106
Concentration in banking ^a	0.40	0.69	9	144
Overhead Costs of banks (share of total assets)	0.02	0.05	35	142
Net Interest Margin	0.03	0.05	87	140
Life insurance penetration (volume/GDP)	0.02	0.03	30	59
Non-life insurance penetration (volume/GDP)	0.01	0.02	57	59
Stock market capitalization to GDP	0.34	0.45	41	89
Stock market total value traded to GDP	0.48	0.28	22	87
Stock market turnover ratio	1.39	0.50	6	92
Private bond market capitalization to GDP	0.00	0.31	35	39
Public bond market capitalization to GDP	0.29	0.38	24	43

^aShare of 3 largest banks in total assets of all commercial banks; Source: World Bank’s World Financial Structure Database.

Table 3-B. Comparing financial systems: Banks vs. Markets (Value-weighted approach)

Measures		English origin *	French origin *	German origin *	Scandinavian origin *	LLSV average	India
Bank and market size	Bank credit/GDP	0.62	0.55	0.99	0.49	0.73	0.31
	Overhead cost/Bank total assets	0.04	0.05	0.02	0.03	0.03	0.02
	Total value traded/GDP	0.31	0.07	0.37	0.08	0.27	0.16
	Market capitalization/GDP	0.58	0.18	0.55	0.25	0.47	0.34
Structure indices: Markets vs. banks **	Structure activity	-0.76	-2.03	-1.14	-1.83	-1.19	-0.66
	Structure size	-0.10	-1.05	-0.77	-0.69	-0.55	0.11
	Structure efficiency	-4.69	-6.00	-5.17	-6.17	-5.17	-5.59
	Structure regulatory	7.02	8.21	10.15	7.72	8.95	10
Financial development (banking and market sectors)	Finance activity	-1.18	-3.38	-0.84	-2.86	-1.58	-3.03
	Finance size	5.10	4.29	5.22	4.60	4.95	-2.26
	Finance efficiency	2.18	0.44	2.85	1.04	2.01	1.90

Notes: All the measures are taken from Levine (2002) or calculated from the World Bank Financial Database using the definitions in Levine (2002) (using 2003 figures for India); (see Appendix A.2 for list of definitions)

*=the numerical results for countries of each legal origin group is calculated based on a value- (GDP of each country) weighted approach. **=measuring whether a country's financial system is market- or bank-dominated; the higher the measure, the more the system is dominated by markets.

Table 3-C. A comparison of the largest stock markets in the world (2004)

Rank	Stock Market	Total Market Cap (US\$ billion)	Concentration (%)	Turnover Velocity (%)
1	NYSE	12,707,578.3	55.8	89.8
2	Tokyo SE	3,557,674.4	56.9	97.1
3	Nasdaq	3,532,912.0	59.3	249.5*
4	London SE	2,865,243.2	82.2	116.6
5	Euronext	2,441,261.4	68.8	115.0
6	Osaka SE	2,287,047.8	56.7	5.9
7	Deutsche Börse	1,194,516.8	73.2	67.9
8	TSX Group	1,177,517.6	63.1	66.2
9	BME Spanish Exchanges	940,672.9	NA	57.7
10	Hong Kong Exchanges	861,462.9	78.6	39.7
11	Swiss Exchange	826,040.8	76.0	100.5
12	Borsa Italiana	789,562.6	61.9	134.9
13	Australian SE	776,402.8	79.8	81.1
14	India (BSE+NSE)	749,597.1	78.4	70.9
15	China (Shanghai+Shenzen)	447,720.3	40.5	97.0

Notes:

1. All figures are from <http://www.fibv.com>, the web site of the international organization of stock exchanges.
2. All figures relate to the period of 01/01/2004 to 12/31/2004.
3. Concentration is the fraction of total turnover of an exchange within a year coming from the turnover of the companies with the largest market cap (top 5%).
4. Turnover velocity is the total turnover for the year expressed as a percentage of the total market capitalization.
5. (*) Turnover velocity for Nasdaq includes double counting; the actual figure should be half of the reported figure.

Table 3-D. A comparison of (mean) external capital markets (stocks and bonds)

Country	English- origin average	French- origin average	German- origin average	Scandinavian- origin average	LLSV Sample average	India
External capital/GNP	0.60	0.21	0.46	0.30	0.40	0.31
Domestic firms/Pop	35.45	10.00	16.79	27.26	21.59	7.79
IPOs/Population	2.23	0.19	0.12	2.14	1.02	1.24
Total debt/GNP	0.68	0.45	0.97	0.57	0.59	0.29
GDP growth (1-year)	4.30	3.18	5.29	2.42	3.79	4.34
Rule of law	6.46	6.05	8.68	10.00	6.85	4.17
Anti-director rights	3.39	1.76	2.00	2.50	2.44	5
One share - one vote	0.22	0.24	0.33	0.00	0.22	0
Creditor rights	3.11	1.58	2.33	2.00	2.30	4

Sources: LLSV (1997a) paper.

Table 3-E. A comparison of Nonperforming loans of banking systems

	1997	1998	1999	2000	2001	2002
China	N/a	2.0 (2.2)	9.5 (10.6)	18.9 (24.9)	16.9 (22.7)	12.6 (15.2)
Hong Kong	1.3 (3.0)	4.3 (10.2)	6.3 (13.9)	5.2 (12.6)	4.9 (12.9)	3.7 (9.6)
India	n/a	7.8 (1.6)	7.0 (1.6)	6.6 (1.6)	4.6 (1.7)	2.2 (0.8)
Indonesia	0.3 (0.2)	11.8 (4.6)	8.1 (2.0)	13.6 (3.2)	9.9 (2.2)	4.5 (0.9)
Japan	2.7 (5.4)	5.1 (10.8)	5.3 (10.9)	5.8 (11.5)	9.2 (15.3)	7.4 (12.8)
South Korea	2.9 (5.1)	4.8 (6.3)	12.9 (12.9)	8.0 (8.6)	3.4 (3.4)	2.5 (2.6)
Taiwan	2.4 (3.2)	3.0 (3.9)	4.0 (5.7)	5.2 (7.6)	6.2 (9.4)	4.1 (5.2)

Notes: NPL is measured as % of total loans made, and as % of GDP (numbers in brackets). Both the loan and NPL are the aggregate of all banks in a country. Source: The Asian Banker data center 2003, <http://www.theasianbanker.com>.

Table 3-F. A cross-country comparison of banking system profitability

The profitability is measured as the return on average equity (ROAE), and return on average assets (ROAA). The latter is presented in the brackets.

	1997	1998	1999	2000	2001	2002
China	6.6 (0.2)	4.0 (0.2)	3.2 (0.18)	3.9 (0.2)	3.5 (0.2)	4.16 (0.2)
Hong Kong	18.7 (1.8)	11.0 (1.0)	18.2 (1.6)	18.8 (1.6)	15.7 (1.4)	15.6 (1.4)
India	17.0 (0.9)	9.7 (0.5)	14.2 (0.7)	0.9 (0.5)	19.2 (0.9)	19.6 (1.0)
Indonesia	-3.8 (-0.3)	N/a	N/a	15.9 (0.3)	9.7 (0.6)	21.1 (1.4)
Japan	-18.6(-0.6)	-19.2(-0.7)	2.7 (0.1)	-0.7 (0.0)	-10.4 (-0.5)	-14.5 (-0.6)
South Korea	-12.5(-0.6)	-80.4(-3.0)	-34.0 (-1.5)	-7.0(-0.3)	15.8 (0.7)	13.1 (0.6)
Taiwan	11.2 (0.9)	9.5 (0.8)	6.9 (0.6)	5.1(0.4)	4.0 (0.3)	-5.2 (-0.4)

Source: The Asian Banker data center 2003, <http://www.theasianbanker.com>.

Table 4.
Comparing the State and Non-state Sectors: 1990-2003 (in US\$ billions)

	State Sector				Non-State Sectors							
	State companies (PSUs)			State Sector Output ^b	Non-state corporations* (listed and unlisted)			Small Scale Industries Sector**				Non-State Sector GDP ^{b,c}
	Number of units ('000)	Paid-up capital ^a	Employment (million)		Number of units ('000)	Paid-up capital ^a	Employment (million)	Number of units ('000)	Fixed Investment	Output ^b	Employment ^d (million)	
1990-91	1.16	15.26	19.06		200.97	5.53	7.68	1,948		49.96	12.53	96.19
1991-92	1.17	17.45	19.21		223.29	6.51	7.85	2,082		57.23	12.98	156.26
1992-93	1.18	18.90	19.33		249.18	8.72	7.85	2,246		68.29	13.41	126.56
1993-94	1.19	19.28	19.45	83.80	274.47	10.49	7.93	2,388	1.13	77.04	13.94	140.84
1994-95			19.47	98.18	304.42	14.79	8.06	2,571	1.30	95.19	14.66	169.13
1995-96	1.20	21.91	19.43	115.26	352.09	18.75	8.51	2,658	1.48	108.42	15.26	194.04
1996-97	1.22	21.68	19.56	115.57	407.93	24.54	8.69	2,803	1.54	116.02	16.00	210.40
1997-98	1.22	22.69	19.42	122.48	449.73	28.58	8.75	2,944	1.63	124.48	16.72	222.72
1998-99	1.22	21.15	19.41	119.92	483.28	30.59	8.70	3,080	2.05	123.76	17.16	223.54
1999-00	1.23	22.14	19.31	141.65	510.76	38.64	8.65	3,212	1.68	132.21	17.85	248.86
2000-01	1.24	21.43	19.14	155.97	541.19	42.90	8.65	3,312	1.74	139.88	18.56	265.68
2001-02	1.27	21.87	18.77	157.85	567.83	49.67	8.43	3,442	1.77	144.74	19.22	276.50
2002-03	1.26	22.71	18.58	174.64	587.99	57.26	8.42	3,572	1.87	153.32	19.97	302.94
CAGR	0.70	3.37	-0.21	8.50	9.36	21.51	0.77	5.18	5.77	9.80	3.96	10.03

Notes: All (nominal) figures are in US\$ billions (inflation during this period was low and not volatile), with conversions made at average exchange rates during each year. *: These include all listed and unlisted (but registered) companies that are larger than firms in the SSI sector; **: Including both registered and unregistered small scale firms;

^a: Paid-up capital is what the investors actually have paid for the share capital (excluding retained earnings), and equals to the sum of face value and share premium; ^b: Output and GDP figures exclude agriculture; ^c: Total (non-agriculture) GDP generated from all non-state sector firms; ^d: Includes labor force from both registered and unregistered firms but not all SSI firms in the unorganized sector.

Source: India-Stat, Central Statistical Organization and the Reserve Bank of India.

Table 5-A. Sources of funds in percentage values:
(Average from 1990-91 through 2003-04)

Sources of Funds	All Firms	State Sector	Non – state sectors				
			Overall	Listed	Unlisted	SSI	SSSBE
Internal Sources	36.3	42.0	33.1	35.0	28.8	6.4	12.5
Capital markets of which	17.8	12.6	20.9	20.0	22.4	31.2	28.6
Equity	13.3	8.5	16.1	15.7	16.6	29.2	27.7
Debt	4.5	4.1	4.8	4.3	5.8	2	0.9
Banks/Financial Institutions	15.9	11.5	19.0	19.7	17.3	9.4	-8.7
Group Companies/Promoters/Directors	0.9	1.2	0.6	0.3	1.3	2.1	1.0
Others (including current liabilities & provisions)	29.1	32.7	26.3	25.0	30.3	50.9	66.6

Source: The source of the data is *Prowess* database compiled by the Centre for Monitoring Indian Economy (CMIE). CMIE is a Mumbai-based economic and business information and research organization. *Prowess* database provides financial statements, ratio analysis, funds flows, product profiles, returns and risks on the stock markets, etc., of over 9,000 Indian companies.

Table 5-B. Sources of funds (% of total) for All Firms from 1990-91 to 2003-04

Sources of Funds	1990-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	2000-01	01-02	02-03	03-04	Average
Internal Sources	29.8	22.6	28.9	28.2	35.8	35.8	27.9	33.0	41.0	32.3	37.5	42.0	55.1	58.4	36.3
Capital markets	16.6	19.7	22.6	38.8	30.3	15.4	18.2	18.4	10.2	23.3	18.5	15.4	-0.5	2.4	17.8
Equity	9.6	8.5	16.5	27.8	24.9	12.0	8.9	8.9	9.7	21.6	15.5	12.2	4.5	5.1	13.3
Debt	7.0	11.2	6.1	11.0	5.4	3.4	9.3	9.5	0.5	1.7	3.0	3.2	-5.0	-2.7	4.5
Banks/Financial Institutions	19.6	8.8	26.3	8.6	13.8	19.8	22.0	23.5	17.9	25.1	1.1	23.7	6.8	6.1	15.9
Group Companies/Promoters/Directors	0.1	-0.6	2.1	-8.0	0.0	3.9	2.2	0.2	0.2	0.4	1.6	3.7	3.3	3.1	0.9
Others	33.8	49.4	20.2	32.4	20.2	25.2	29.7	24.9	30.6	18.9	41.3	15.2	35.3	30.0	29.1
<i>No. of Companies</i>	<i>1562</i>	<i>1895</i>	<i>2169</i>	<i>2619</i>	<i>3362</i>	<i>4071</i>	<i>4329</i>	<i>4373</i>	<i>4613</i>	<i>4996</i>	<i>5321</i>	<i>5492</i>	<i>5635</i>	<i>5564</i>	

Source: (Same as Table 5-A) CMIE Prowess Database.

Table 6-A. Comparing ownership structure of listed firms.

Panels A and B are taken from LLS (1999). The first row in Panel C is the average of the Asian countries (excluding Japan) examined in Claessens et al. (2000). The second row is the average of Chinese firms in Allen, Qian and Qian (2005). Our sample of 854 listed firms from India (panel data set for the period 1995 to 2004) is collected and compiled from the CMIE *Prowess* database. The average ownership structures during 2001-2004 are presented in the last 5 rows of the table.

Country	Widely held	State	Family	Widely held financial	Widely held corporation	
Panel A: LLS (1999) sample with large firms						
Highantidirector average	34.17	15.83	30.42	5	5.83	
Low antidirector average	16	23.67	38.33	11	2	
Sample average	24	20.19	34.81	8.3	3.7	
Panel B: LLS (1999) sample with medium firm size						
Highantidirector average	16.67	10.33	50.92	5.83	1.67	
Low antidirector average	6	20.87	53.8	6.67	2.67	
Sample average	10.74	16.19	52.52	6.3	2.22	
Panel C: Asian firms						
Asia (no Japan, from Claessens et al., 2000)	3.09	9.36	59.36	9.66	18.55	
China (Allen, Qian, and Qian 2005)	0.44	60	13.56	1.83	24.17	
	NRI/OCB*		a	b	c	
India full sample	3.76	1.76	0.30	81.06	0.15	15.36
Small manufacturing firms, SSI	1.20	0.24	0.00	83.87	0.00	14.68
Larger manufacturing firms, NSSI	11.47	3.15	0.56	85.94	0.56	7.31
Small non-manufacturing firms, SSSBE	0.36	2.31	0.00	74.73	0.00	22.48
Large non-manufacturing firms, NSSSBE	1.20	1.20	0.67	79.09	0.00	17.84

Notes: (1) “Widely held” firms are defined as no large shareholder holds more than 10% of shares. “State” (“family”) firms are those with the controlling shareholder being the state (a family). “Widely held financial” (“widely held corporation”) are those with the controlling shareholder being a widely held financial company (widely held corporation).

*Non-Resident Indians (NRIs) are individuals of Indian nationality or Indian origin resident outside India. Overseas Corporate Bodies (OCBs) include overseas companies, partnership firms, societies and other corporate bodies which are owned predominantly (at least 60%) by individuals of Indian nationality or Indian origin resident outside India.

a: For these India firms, we identify the dominant shareholder to be private block-holders, but we are not sure how many blockholders there are and whether they are related or not.

b: For these India firms, we identify the dominant shareholder to be a financial company, but we are not sure whether the financial company is widely held or not.

c: For these India firms, we identify the dominant shareholder to be another listed and traded corporation, but we are not sure whether this corporation is widely held or not.

Table 6-B. Summary statistics of financial items in listed firms

Our sample of 854 listed firms from India (panel data set for the period 1995 to 2004) is collected and compiled from the CMIE *Prowess* database. This table summarizes financial items of listed firm at Dec 2004. Those items focus on the firms' internal and external financings.

	Mean	Median	Min	Max	Std. Dev	# of obs.
Panel A: Market cap. (US\$ million)						
Full sample	16.98	0.84	0.00	731.53	70.10	520
Small manufacturing firms, SSI	1.27	0.51	0.00	21.85	2.70	122
Large manufacturing firms, NSSI	26.88	2.92	0.05	604.36	81.59	191
Small non-manufacturing firms, SSSBE	3.10	0.32	0.00	114.04	12.38	105
Large non-manufacturing firms, NSSSBE	29.52	1.14	0.06	731.53	105.00	102
Panel B: EPS (US\$)						
Full sample	0.07	0.012	-1.32	1.95	0.26	505
Small manufacturing firms, SSI	0.01	0.001	-1.17	1.07	0.17	122
Large manufacturing firms, NSSI	0.12	0.051	-1.32	1.95	0.33	187
Small non-manufacturing firms, SSSBE	0.03	0.006	-0.32	0.79	0.12	94
Large non-manufacturing firms, NSSSBE	0.10	0.014	-0.36	1.43	0.30	102
Panel C: Net income (US\$ million)						
Full sample	1.60	0.022	-40.98	164.17	10.89	827
Small manufacturing firms, SSI	0.01	0.004	-2.09	1.08	0.28	195
Large manufacturing firms, NSSI	3.60	0.298	-40.98	164.17	17.14	222
Small non-manufacturing firms, SSSBE	0.04	0.011	-10.10	3.17	0.82	228
Large non-manufacturing firms, NSSSBE	2.68	0.011	-2.85	120.37	12.64	182
Panel D: Retained earnings (US\$ million)						
Full sample	9.49	0.11	-409.80	1006.71	69.16	827
Small manufacturing firms, SSI	-0.01	0.02	-20.93	10.84	2.71	195
Large manufacturing firms, NSSI	20.49	1.44	-409.80	1006.71	102.84	222
Small non-manufacturing firms, SSSBE	0.16	0.07	-101.04	26.60	8.09	217
Large non-manufacturing firms, NSSSBE	16.93	0.07	-28.47	781.38	89.09	193
Panel E: Proceeds from stock sales (US\$ million)						
Full sample	0.69	0.00	-16.67	103.78	5.62	826(71) ^a
Small manufacturing firms, SSI	0.20	0.00	-0.98	18.09	1.64	195(12) ^a
Large manufacturing firms, NSSI	1.91	0.00	-16.67	103.78	10.00	222(46) ^a
Small non-manufacturing firms, SSSBE	0.51	0.00	-0.78	46.96	3.80	216(12) ^a
Large non-manufacturing firms, NSSSBE	0.01	0.00	0.00	1.49	0.11	193(1) ^a
Panel F: Proceeds from Long term borrowing (US\$ million)						
Full sample	7.47	0.00	-1.20	1107.38	62.93	826(188) ^a
Small manufacturing firms, SSI	0.60	0.00	-0.18	34.71	3.18	195(34) ^a
Large manufacturing firms, NSSI	23.58	0.00	0.00	1107.38	118.73	222(89) ^a
Small non-manufacturing firms, SSSBE	1.44	0.00	-1.20	182.78	13.24	216(29) ^a
Large non-manufacturing firms, NSSSBE	2.64	0.00	0.00	111.11	12.98	193(36) ^a

^a: Number of none-zero observations. The calculations are based on an exchange rate of US \$ 1 = 45 Rupees.

Table 6-C. External funding at firm level

Country	English origin average	French origin average	German origin average	Nordic origin average	LLSV sample average	India Full Sample	SSI	NSSI	SSSBE	NSSSBE
Market cap/sales	0.69	0.51	0.63	0.37	0.58	0.41	0.63	0.05	3.42	0.73
Market cap/cashflow	5.16	3.85	7.48	3.25	4.77	3.03	6.05	0.55	12.6	2.85
Debt/sales	0.26	0.27	0.3	0.28	0.27	0.47	0.32	0.53	0.50	0.58
Debt/cashflow	2.01	2.06	3.18	2.42	2.24	3.53	2.96	4.17	2.14	2.95

Sources: LLSV countries—WorldScope and LLSV (1997a); Indian firms: 854 listed firms (panel data set for the period 1995 to 2004) are from the CMIE *Prowess* database, with each ratio being the mean of the pooled panel of firms during the same time period.

Table 7. Empirical tests on listed firms in India and other countries

Data: Our sample of 1395 listed firms from India (panel data set for the period 1995 to 2004) is collected and compiled from the CMIE *Prowess* database. We compare these India firms with other firms studied in LLSV (2000b, 2002; 4,103 firms from 33 countries during the 1989–1994 period, and India was included). We do not have detailed firm-level data for LLSV samples, but we do have: (1) the cross-sectional summary statistics by country; (2) the regression results across countries.

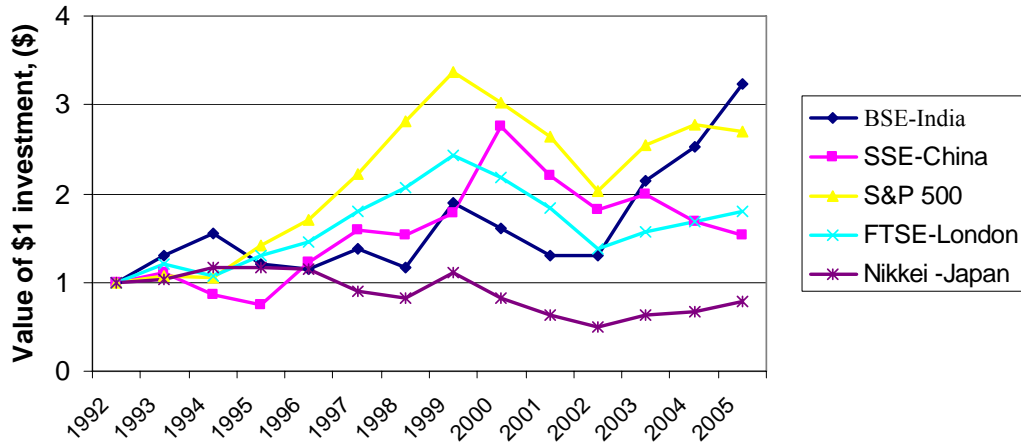
Empirical Methodologies: Step 1: Using the summary statistics from LLSV samples, we create a “synthetic firm” for each of the 33 countries. For this synthetic firm, each firm characteristic is equal to the median of the same variable across all the firms in that country. **Step 2:** Three OLS regressions are run on the 33 (LLSV countries) “synthetic” observations. The dependent variables in these tests are: (1) dividend/earnings ratio; (2) dividend/sales ratio; and, (3) Tobin’s Q (measured by market-to-book assets ratio). The independent variables are the same ones used in LLSV (2000b, 2002). Based on the results from each of the three regressions. **Step 3:** Since India is included in the LLSV sample, we compare the predicted in-sample-prediction on india’s synthetic firm with its true observation in LLSV to see whether India is an outlier, by examining the residuals from the regression.

The following table presents the coefficients estimates, t ratios, prediction error, and standard errors of the residuals from the regression on 33 synthetic firms for dividend policy and 28 synthetic firms for valuation analysis. For the valuation analysis, the prediction on India is out-of-sample prediction.

	y: Dividend/earnings	y: Dividend/sales		y: Tobin’s Q
Intercept	42.44 (3.79)	1.30 (0.64)	Intercept	-0.58 (-0.58)
Civil law dummy	3.42 (0.33)	-1.06 (-0.56)	Growth in sales	0.00 (0.17)
Low protection	-9.09 (-0.91)	1.57 (0.86)	Common law	0.30 (0.30)
Growth in Sales	0.47 (0.72)	0.16 (1.36)	Anti-director rights	0.65 (1.81)
GS * civil law	-1.12 (-1.18)	0.00 (0.00)	CF rights	5.87 (1.89)
GS *Low Protection	0.86 (0.89)	-0.20 (-1.13)	CF rights * common Law	-0.52 (-0.15)
Div tax advantage	-10.54 (-0.85)	0.25 (0.11)	CF rights * anti-director	-2.12 (-1.78)
R-squared	0.16	0.09	R-square	0.39
No of observations	33	33	No of observations	27
Residuals of India	13.15	0.11	Residuals of India	0.75
Standard error of the residuals	11.84	2.16	Standard error of the residuals	0.32

Figure 1.

Return on Stock Indexes around the World



The Y-axis represents the buy-and-hold return of \$1 investment, and the X-axis represents the dates. Returns of five indices are compared. They are BSE-India (Mumbai Stock Exchange), SSE-China (Shanghai Stock Exchange), S&P 500, FTSE London, and Nikkei-Japan. The Sample period is from December 1992 to October 2005.

Figure 2. Investor Protection and External Markets – International Comparison

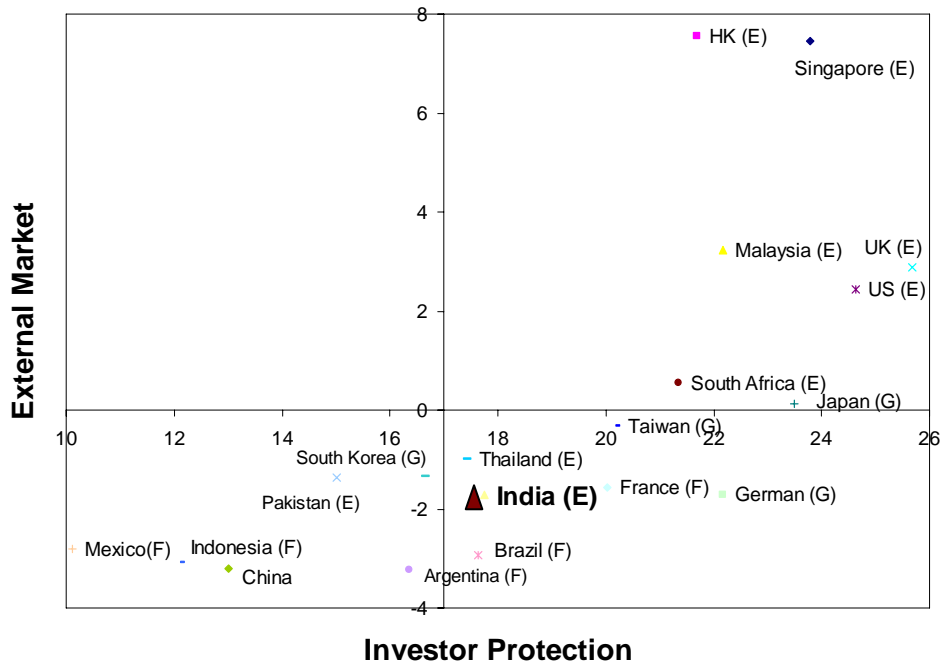
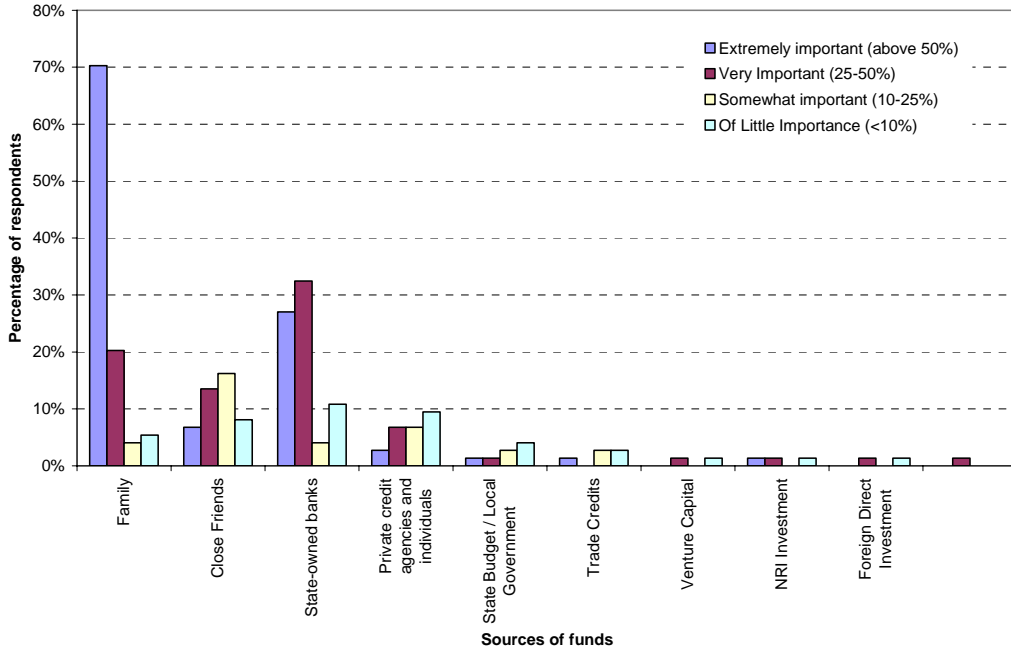


Figure 2 compares India's legal system and external financial markets to those of LLSV countries (LLSV, 1997a, 1998) and China. Following LLSV (1997a, 1998), the score on the horizontal axis measures overall investor protection in a country. It is the sum of (overall) creditor rights, shareholder rights, rule of law, and government corruption. The vertical axis measures the (relative) size and efficiency of that country's external markets. The score of a country measures the distance of the country's overall external markets score (external cap/GNP, domestic firms/Pop, IPOs/Pop, Debt/GNP, and Log GNP) to the mean of all countries, with a positive (negative) figure indicating that this country's overall score is higher (lower) than the mean.

Figure 3. Financing Channels for Survey (SSI) Firms

Panel A

Importance of various sources of funds at start-up



Panel B

Ease of obtaining funds during growth stage

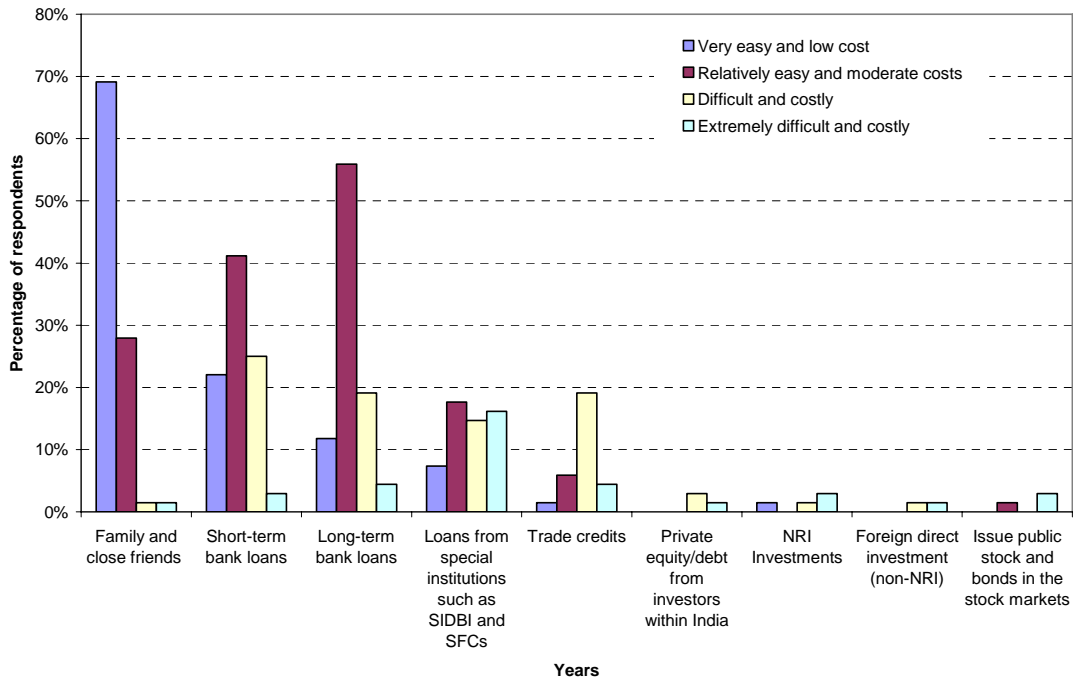
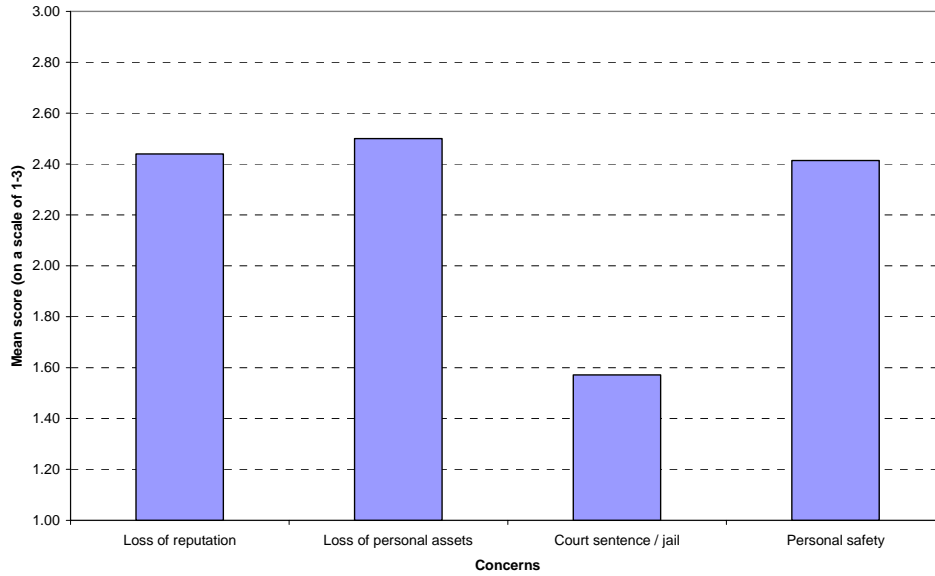


Figure 4. Governance Mechanisms of Survey (SSI) Firms

Panel A

Concerns in Case of default



Panel B

Concerns for breach of contract

