

Law, Institutions and Finance in China and India

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Abstract

In this paper we examine and compare the legal and institutional set-ups in China and India. China differs from most of the countries studied in the law, institutions, finance, and growth literature: Its legal and financial systems as well as institutions are all underdeveloped, but its economy has been growing at a very fast rate. Despite its English common-law origin and British-style judicial system and democratic government, there is enough documented evidence to suggest that the effective level of investor protection and the quality of legal institutions in India are quite weak as well. However, this has evidently not prohibited growth in either country. Small and high growth firms in both countries make extensive use of informal and relationship-based arrangements to finance growth.

Keywords: India, law and finance, institutions, growth, banks, markets, SME sector.

JEL Classifications: O5; K0; G0.

I. Introduction

We compare the financial systems of the two largest and fastest growing emerging economies of the world – China and India – to better understand their very impressive growth experience with institutions that clearly fall short of developed country standards. The two financial systems differ widely in their nature and evolution and yet reflect many common features. Transiting from a socialist system to a market-based system, China had no formal commercial legal system and associated institutions in place when its economy began to take off in the 1980s. India, on the other hand, has a long history of modern legal institutions and financial markets, and has inherited a set of rich institutions.

Allen, Qian and Qian, 2005 (AQQ) categorize the Chinese firms into three sectors: 1) the *State Sector* that includes all companies such that the government has ultimate control (state-owned enterprises, or SOEs); 2) the *Listed Sector* that includes all firms that are listed on an exchange and are publicly traded; and, 3) the *Private Sector* that includes all the other firms with various types of private and local government ownership.¹ They find that the standard law-finance-growth view works well for the State and Listed sectors: With poor legal protection of minority and outside investors, external markets are weak, and firm growth is slow or negative. However, the size, growth, and importance of these two sectors in the economy are eclipsed by those of the Private Sector. There, in spite of relatively poorer applicable legal protection and standard financing channels, growth is much higher. Effective, alternative financing channels and corporate governance mechanisms based on reputation and relationships support the growth of the Private Sector.

The State Sector has actually been shrinking with the ongoing privatization process, which includes firms going public. AQQ also notes that equity ownership is concentrated within the State for firms converted from the State Sector, and founders' families for non-state firms (e.g., Claessens, Djankov, and Lang, 2000, 2002). The standard corporate governance mechanisms are weak and ineffective in the Listed Sector.

¹ The Private Sector includes the following types of firms: 1) collectively- and jointly-owned companies, where joint ownership among local government, communities, and institutions is forged; and, 2) privately owned companies (but not publicly listed and traded), where controlling owners can be Chinese citizens, investors (or companies) from Taiwan or Hong Kong, or foreign investors (or companies). See Appendix A.4 for more details.

Both the dividend ratio and firm value of Chinese firms are low compared to similar firms operating in countries with stronger investor protection, consistent with predictions in the law and finance literature that weaker investor protection leads to these outcomes.

For firms in the Private Sector the two most important financing channels during their start-up and subsequent periods are financial intermediaries, and founders' friends and families. Firms have outstanding loans from multiple financial intermediaries, with most of the loans secured by fixed assets or third party guarantees. During a firm's growth period, funds from "ethnic Chinese" investors (from Hong Kong, Taiwan, and other countries) and trade credits from business partners also feature as important sources. Access to large scale of funding and increase in reputation are considered the most important benefits of going public while disclosure of valuable information to competitors and outsiders and substantial fees are the biggest drawbacks.

Despite the near absence of formal governance mechanisms, alternative mechanisms have been remarkably effective in the Private Sector. Perhaps the most important of these is the role of reputation and relationships (see Greif, 1989, 1993). In the absence of a dominant religion, Confucian beliefs serve as the most important force shaping China's social values and institutions – they define family and social orders and trust, and differ from western emphasis on the rule of law. Competition serves as a positive force too. Given the environment of low survivorship during early stages of a firm's development, firms have a strong incentive to gain a comparative advantage. The third important factor is the role of local governments. Properly motivated government officials support and participate in the growth of Private Sector firms in the regions that witnessed the most successful economic growth and improvement in living standards.

India provides a very different setting. Allen et al (2006) (ACDQQ) note that legal protection of investors in India, on paper, is one of the strongest in the world largely because of the English common-law origin of its legal system. Based on several widely used aggregate measures, they show that the *effective* level of investor protection and the quality of legal institutions in India is, however, far below the average for English-origin countries.²

² Other studies also document this. For example, DLLS (2007) 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.

This is reflected in firm characteristics as well. Indian firms have much lower dividend payout and valuation than similar firms operating in countries with strong investor protection, but are closer to the firms in countries with weak protection. Equity ownership is highly concentrated within the founder's family and/or the controlling shareholder, even by Asian standards. Further, smaller firms in India exhibit symptoms of an even lower investor protection regime.

ACDQQ conclude that formal financing channels based on stock markets and banks are not essential for corporate operations and investments as long as alternative financing sources pick up the financing slack. Since the mid-90's the average Indian firm grew at an impressive compound annual rate exceeding 10%. Moreover, as in China, they point out that within India too the SME firms grow faster, though they depend little on formal legal channels and use far less formal finance than their larger counterparts. This finding holds after controlling for all relevant factors (such as age, industry and assets size in initial years) and correcting for possible survivorship biases due to higher death rates among the smaller firms. It also appears to hold for other sample periods and sizes.

The rest of the paper is organized as follows. Sections II and III present aggregate economy-level evidence on law, finance, and institutions in China and India respectively. Sections IV discusses the survey evidence collected from small firms in China and India. Section V presents our conclusions.

II. Evidence on China's legal and financial systems and growth in the three sectors

In this section we largely draw upon AQQ to provide an assessment of China's entire economy, and then of the status of its legal and financial systems.

2.1 Status of China's economy

In July 2007, China had an estimated population of 1.32 billion people, the largest of any country. Table 1 underlines China's (and India's) status as one of the most important countries in the world. China's GDP ranked fourth in the world. However, if we use PPP to recalculate GDPs, China's economy is the second largest behind only the U.S. It may be more useful to compare China's economic growth with other major

economies, since China's rapid growth only started in 1979.³ In terms of PPP-adjusted GDP figures in 2006, China is more than twice the size of India, the second largest emerging economy. In terms of the annual growth rate of PPP-adjusted GDPs during 1990 to 2006, China has been growing much faster than Vietnam, which has the second highest growth rate during the same period. Moreover, China's population growth during the same period was slow, and its per capita PPP-growth rate is also the highest among major economies.

2.2 Legal system

AQQ first examine measures of China's legal system and compare them to the average measures of the 49 countries from different legal origins. In terms of overall creditor rights (Table 2), China falls between the English-origin countries that have the highest measures of protection, and French-origin countries that have the poorest protection. China's shareholder protection shows a similar pattern. Most countries have better creditor and shareholder protection than China.

They also compare China's legal system to those of other emerging countries, similar to the growth comparison above. China's corruption index is the fifth worst among the fifteen selected developing countries. In order to have an effective law enforcement system, a country must have an independent and efficient judicial system with a sufficient supply of qualified legal professionals. AQQ point out that according to the Ministry of Justice of China there were 110,000 lawyers and 9,000 law firms as of 2002, while Orts (2001) estimates that there are 150,000 lawyers in China, roughly the same number of licensed attorneys as in the state of California. Lawyers represent only 10% to 25% of all clients in civil and business cases, and even in criminal prosecutions, lawyers represent defendants in only half of the cases. Among the approximately five million business enterprises in China, only 4% currently have regular legal advisers. Moreover, only one-fifth of all "lawyers" in China have law degrees, and even a lower proportion of judges have formal legal education.

³ Measured by simple exchange rates, China's GDP in 1980 was US\$180.6 billion while in 1990 it reached US\$368 billion. Also note that the exchange rate between the RMB and US\$ changed from US\$1 = 4.25 yuan to 8.28 yuan in 1992, which introduced a significant downward bias for China's GDP figure in 1992. This is why using PPP-adjusted figures to measure GDP and its growth is more appropriate.

Another reason for ineffective enforcement of many new laws in China is the intrinsic conflict of interest between “fair play” in practicing law and the monopoly power of the single ruling party, especially in cases in which government officials or their affiliates are involved. La Porta, Lopez-de-Silanes, Pop-Eleches, and Shleifer (LLPS, 2004) find that China ranks among the worst countries in terms of political freedom as well as the protection of property rights. They also find that political freedom (constitutional rules) and measures of economic freedom (property rights, procedures of start-up firm) are positively correlated across countries, and that judicial independence accounts for the positive effect of common law legal origin in economic freedom. However, China stands out as an exception to this rule, scoring extremely poorly on both political and economic freedoms and yet enjoying one of the fastest economic growth rates.

Finally, AQQ points out that in China the reforms accelerated in 1992, with the enactment of regulations governing enterprises with foreign investment. Since then, the Accounting Standards for Business Enterprises of China, together with the 13-industry regulation board, have been trying to move China’s accounting practice in the Listed Sector toward the IAS (International Accounting Standards). However, as with legal professionals, the most glaring problem in China’s accounting system is the lack of independent, professional auditors. This implies that the proposed IAS-based standards may actually be counterproductive within China’s current infrastructure.

2.3 Financial System

In Table 3 (combined from AQQ and ACDQQ) we compare China’s (and India’s) financial system to those of the LLSV-sample countries (LLSV, 1997a, 1998), using measures from Levine (2002). China’s stock markets, which have been growing very rapidly since 1990, are still smaller than those of most of the other sample countries, both in terms of market capitalization and the total value traded as a fraction of GDP.

We compare the development of the entire financial system (“Financial development”), including both banks and markets. Given all other countries’ measures are based on private bank credit only, if we only include China’s private bank credit, we find that China’s overall financial market size (“Finance activity” and “Finance size”) is

smaller than the LLSV-sample average level, and each legal-origin group average. In terms of the efficiency of the financial system, China's measure is below all sub-samples of LLSV countries. Based on the above evidence, AQQ concludes that China's financial system is dominated by a large but inefficient banking sector.

Financial markets

China's Shanghai Stock Exchange, including non-tradable shares, ranked fourteenth among the largest stock exchanges in the world at the end of 2006. In addition, the Hong Kong Stock Exchange (HKSE hereafter), where selected firms from Mainland China can now be listed and traded, is ranked sixth in the world.

The fast growth of China's stock markets notwithstanding, these markets are not efficient in that prices and investor behavior do not reflect fundamental values of listed firms. In Table 4, "Concentration" measures the fraction of total turnover of the market in 2006 that is due to the trading and turnover of companies within the largest market capitalization quintile. Large-cap stocks in China are not frequently traded and the concentration ratio, 31%, is much lower than in any other major stock exchange in the world except for NYSE. On the other hand, medium- and small-cap stocks are traded extremely frequently in China, as shown by the high "Turnover Velocity," defined as the total turnover for the year expressed as a percentage of total market cap. China's velocity of 153% is even higher than that of NYSE.

Consistent with these findings, Morck, Yeung, and Yu (2000) find that stock prices are more synchronous in emerging countries, including China, than in developed countries. They attribute this phenomenon to poor minority investor protection and imperfect regulation of markets in emerging markets.

The inefficiencies in the Chinese stock markets stem from poor and ineffective regulation. Based on a study of securities laws with the focus on the public issuance of new equity in 49 countries (China not included), La Porta, Lopez-de-Silanes, and Shleifer (LLS hereafter, 2003) find that private enforcement of laws through disclosure and liability rules serves better in promoting stock market development than strong government regulation. Thus China's poor disclosure rules, accounting standards, and

judicial systems, can explain, in part, the status of China's stock markets. To improve the quality of government regulation, Glaeser, Johnson, and Shleifer (2001) argue that regulators must be properly motivated. The concentration and turnover velocity of China's markets (Table 4) were actually even higher in the late 1990s, and the improvement since then has been, in part, due to advances in the quality of regulation.

A strong venture capital sector is often argued to be the driver of U.S. success in developing new industries in recent years (e.g., Kortum and Lerner, 2000). China's venture capital industry, since its inception in the 1980s, has remained underdeveloped with a very limited role in supporting the growth of young firms. Moreover, based on interviews conducted with 36 venture capitalists in 24 venture companies, Bruton and Ahlstrom (2002) find that the limited formal rules and regulations are often ineffective, while alternative mechanisms based on reputation and relationship are the norm in all stages and phases of the industry.

In summary, with an underdeveloped legal system, the fact that China has small external markets is hardly surprising. Figure 1 compares China's (and India's) legal system and external financial markets to those of LLSV legal-origin groups. The horizontal axis measures overall investor protection in each country, while the vertical axis measures the (relative) size and efficiency of that country's external markets.⁴ Countries with English common-law systems (French civil-law systems) lie in the top-right region (bottom-left region) of the graph, while China is placed close to the bottom-left corner of the graph.

Banking sector

As AQQ point out, China's banking sector is dominated by four large and inefficient state-owned banks. The LLS (2002) result on the negative relation between government ownership of banks and a country's economic growth seems to apply well to China's State Sector and the status quo of its banking sector. However, this high government ownership has not slowed down the growth of the Private Sector.

⁴ 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.

The most glaring problem for China's banking sector is the extent of nonperforming loans (NPLs hereafter) within the four largest state-owned banks. A large fraction of these bad loans resulted from poor lending decisions made for SOEs, often due to political or other non-economic reasons. Limited data availability on NPLs, arguably a strategic disclosure decision of the government, compounds the problem. This lack of disclosure of NPLs only fuels speculation that the problem must be severe. For example, Lardy (1998) argues that if international standards were used, the existing NPLs within the state-owned banks as of the mid-1990s would make these banks' total net worth negative.

Tables 5-A and 5-B compare NPLs and banking system profitability in China and six other major Asian economies in recent years. Information on China's NPLs first became available in 1998, but AQQ argue that the figures in 1998 and 1999 in Table 5-A probably significantly under-estimate the actual size. During the period of 2000 to 2002, China has the largest amount of NPLs among the seven Asian economies, either as a fraction of total new loans made by all banks or as a fraction of GDP in a given year. This comparison includes the period during which Asian countries recovered from the 1997 financial crisis, and the period during which the Japanese banking system was disturbed by the prolonged NPL problem. Moreover, the profitability of China's banking system, measured by the return to equity or assets, is also among the lowest in the same group of economies (Table 5-B).

In recent years the Chinese government has taken active measures to resolve this problem. Four state-owned asset management companies were formed with the goal of assuming these NPLs and liquidating them. Information from these companies' auction data shows that the cash recovery on the bad loans ranges from 8% to 60%. State-owned banks have also improved their loan structure by increasing loans made to individual lenders while being more active in risk management and monitoring of loans made to SOEs. For instance, the ratio of consumer lending to total loans made for the four state-owned banks increased from 1% in 1998 to 10% in 2002.

There has also been a boom in the entry and growth of non-state financial intermediaries, and this trend is expected to continue with more foreign banks entering

the domestic credit markets as a result of China's entrance into the WTO. In 1997, total new loans made by the four largest state-owned banks accounted for more than 75% of all new loans, while new loans made by "shareholding" banks accounted for less than 7%. In 2001, the share of new loans made by state-owned banks dropped to 49% while the fraction of new loans made by shareholding banks rose to 23.5%. All the above facts taken together can explain why NPLs have been falling in recent years, as reflected in Table 5-A.

2.4 Growth in the State, Listed, and Private sectors

The Private Sector dominates the State and Listed sectors in terms of both the size of the output, and the growth trend: Total output in 1999 was US\$1200 billion for the Private Sector, while it was around US\$400 billion in the State and Listed sectors combined; the Private Sector grew at an annual rate of 14.3% between 1996 and 2002, while the combined State and Listed sectors grew at 5.4% during the same period. In addition, the growth rates for investment in fixed assets of these sectors are comparable, which implies that the Private Sector is more productive than the State and Listed sectors. Finally, there has been a fundamental change among the State, Listed, and Private sectors in terms of their contribution to the entire economy: The State Sector contributed 76% of China's total industrial output in 1980, but in 1996 it only contributed 28.5%; in 1980, individually owned firms, which are a subset of Private Sector firms, were negligible, but in 1996 they contributed 15.5% of total industrial output; the above trend of the Private Sector replacing the State Sector will continue in the near future.

The Private Sector is also a much more important source for employment opportunities than the other two sectors. Over the period from 1995 to 2002, the Private Sector employed an average of over 70% of all nonagricultural workers, while the Township Village Enterprises (TVEs hereafter), also a subset of Private Sector firms, are by far the most important employer for workers from the rural areas. Moreover, the number of employees working in the Private Sector grew at a rate 1.5% per year over this seven-year period, while the labor force in the State and Listed sectors actually retracted. These patterns are particularly important for China, given its vast population and potential problem of unemployment.

III. The Institutional Environment in India – An Assessment

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. However, particularly in contrast to China, the Indian economy also had arguably the best formal financial markets in the developing world, with four functioning stock exchanges (one of them, BSE, the oldest in Asia) and clearly defined rules governing listing, trading and settlements; a well-developed equity culture if only among the urban rich; an old and established banking system with clear lending norms and recovery procedures; and better corporate laws than most other erstwhile colonies. The Company's Act of 1956, as well as other corporate laws and laws protecting the investors' rights, were built on this foundation.

After independence, a decades-long turn towards socialism put in place a corruption-breeding regime and culture of licensing, protection, and widespread red-tape, which largely continued till 1990-91 when a severe balance of payments crisis ushered in the era of reforms comprising deregulation, liberalization of the external sector, and partial privatization of some of the state sector enterprises. Economic growth accelerated from an average rate of 3.5% (infamously labeled "the Hindu rate of growth") and to about 5.6% since the 1980's. India's annual GDP growth rate (in constant prices) of 6.1% during 1990-2006 was the fourth highest in the world. In 2006, India's PPP-adjusted GDP was also the fourth highest in the world.

In 2004, 52% of India's GDP was generated in the services sector, while manufacturing and agriculture accounted for 26% and 22% respectively. In terms of employment, however, agriculture accounted for about two-thirds of the total labor force (almost half billion), indicating both poor productivity and widespread underemployment in the sector. Over 90% of the labor force works in the "unorganized sector."⁵

III.1 Law, Institutions and Business Environment

Perhaps the most striking fact about India's legal system is the difference between investor protection provided *by the law (de jure)* as opposed to protection *in practice (de facto)*. Table 2 compares India's scores relative to different legal-origin country groups

⁵ According to the official definition, the unorganized sector comprises: 1) all the enterprises except units registered under Section 2m(i) and 2m(ii) of the Factories Act, 1948, and Bidi and Cigar Workers (condition of employment) Act, 1966; and 2) all enterprises except those run by the government (central, state and local bodies) or Public Sector Enterprises.

examined in the law and finance literature (by LLSV and others), and other emerging markets along several dimensions of law and institutions. As discussed above, with the English common-law system, India has strong protection of investors on paper. For example, the scores on both creditor rights (with a score of 4/4 in LLSV (1998), based on the Company's Act of 1956, to 2/4 in DMS (2005), based on the Sick Industrial Companies Act of 1985) and shareholder rights (5/6) are the highest of any country in the world.

Corruption is a major systemic problem in many developing countries and is of particular importance for India. Studies by the World Bank (*World Development Report 2005*) have found that corruption was the number one constraint for firms in South Asia and 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. Based on *Transparency International's* Corruption Perception Index, India has a score of 3.5 out of 10 in 2007 (a higher score means less corruption), and, tied with China to rank 72 out of 179 countries (with the range being 1.4 to 9.4).

Next, we consider two measures for the quality of accounting systems. The disclosure requirements index (from 0 to 1, higher score means more disclosure; LLS 2006) measures the extent to which listed firms have to disclose their ownership structure, business operations and corporate governance mechanisms to legal authorities and the public. India's score of 0.92 is higher than the averages of all LLSV subgroups of countries, including the English origin countries, suggesting that Indian firms must disclose a large amount of information. However, this does not imply the quality of disclosure is also good. In terms of the degree of earnings management (higher score means more earnings management; Leuz, Nanda, and Wysocki 2003), India's score is much higher than the average of English origin countries, and is only lower than the German origin countries, suggesting that investors have a difficult time in evaluating Indian companies based on publicly available reports. It seems that while Indian companies produce copious amounts of data, form triumphs over substance in disclosure and with an accounting system that allows considerable flexibility, there is enough room for companies to hide or disguise the truth.

The efficiency and effectiveness of the legal system is of primary importance for

contract enforcement, and we have two measures. First, according to the legal formalism (DLLS 2003) index, India has a higher formalism index than the average of English origin countries, and is only lower than that of the French origin countries. The legality index, a composite measure of the effectiveness of a country's legal institutions, is based on the weighted average of five categories of the quality of legal institutions and government in the country (see Berkowitz, Pistor, and Richard 2003). Consistent with other measures, India's score is lower than the averages of all the subgroups of LLSV countries, suggesting that India's legal institutions are *less* effective than those of many countries, and that it will be more difficult for India to adopt and enforce new legal rules and regulations than other countries.

Finally, 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.⁶ 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 financed through the state-owned banking sector, often by using connections with influential politicians and bureaucrats.

Since the beginning of liberalization in 1991, two major improvements have taken place in the area of creditor rights protection – the establishment of the quasi-legal Debt Recovery Tribunals that have reduced delinquency and consequently lending rates (Visaria (2005)); and the passing of the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act in 2002 and the subsequent Enforcement of Security Interest and Recovery of Debts Laws (Amendment) Act in 2004. These laws have paved the way for the establishment of Asset Reconstruction Companies and allow banks and financial institutions to act decisively against defaulting borrowers. In recent

⁶ 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%.

years, recovery has shown significant improvement, presumably because, at least in part, of a well-performing economy.

To summarize, 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. While the need for judicial and legal reforms has long been recognized, little legislative action has actually taken place so far (Debroy (2000)). Currently, the government is trying to emulate the success of China by following the Special Economic Zone approach rather than overhauling the entire legal system.

III.2 Financial/Business Laws and Regulations in India

Red tape and regulations still rank among the leading deterrents for business and foreign investment in India leading to its latest ranking of 120 out of 178 in the World Bank's Ease of Doing Business indicator in 2008 (Table XX Panel A) (as opposed to China ranked at a considerably more respectable, 83). India features consistently in the second half of the sample for many aspects of business regulation with the best performance for investor protection. Credit availability and investor protection are the only two areas where India scores higher than China

To start a business in India entrepreneurs have as many procedures as in China (Table XX Panel B), causing comparable time delay but requiring close to *nine* times the cost (as a proportion of per capita income). Very recently (second half of August 2007) , the Government of India has decided to improve this situation and has announced a drastic reduction in the number of approvals and permits necessary to start new business. Whether and when this translates to actual practice is yet to be seen.

It is almost twice as hard to fire people in India as in China though it is much easier to hire in India . With Indian states having considerable variation in their labor laws, Besley and Burgess (2004) show that during the three and half decades before liberalization began in 1991, Indian states that followed more pro-worker policies experienced lower output, investment, employment and productivity in the registered or “formal” sector and higher urban poverty with an increase in informal sector output.

In the area of credit availability, India reveals considerable paucity of credit quality information through the use of public registry or coverage of private bureaus. However, India's excellent investor protection provisions in the law should be viewed together with her performance in contract enforcement where the number of procedures and time delays are about double that in OECD countries and the costs of contract enforcement about *four* times that in China. Infrastructure also lags in India with costs of shipping more than twice that of China's.

As for securities markets regulation, using the framework of La Porta et al (2006) that focuses on disclosure and liability requirements as well as the quality of public enforcement of the regulations controlling securities markets, India scores 0.92 in the index of disclosure requirements third highest after the United States and Singapore. As for liability standard, India's score is the fifth highest, 0.66 while the sample mean is 0.47. In terms of the quality of public enforcement, i.e. the nature and powers of the supervisory authority, the Securities and Exchanges Board of India (SEBI), India scores 0.67, higher than the overall sample mean as well as the English-origin average of 0.52 and 0.62 respectively and ranks 14th in the sample.

In comparing the regulatory powers and performance of SEBI with those of the SEC (Securities and Exchanges Commission) in the USA, Bose (2005) concludes that while the scope of Indian securities laws are quite pervasive, there are significant problems in enforcing compliance, particularly in the areas like price manipulation and insider trading. Between 1999 and 2004, Bose finds that SEBI took action in 481 cases as opposed to 2,789 cases for the SEC even though the latter regulates a significantly more mature market. As a ratio of actions taken to the number of companies under their respective jurisdictions, SEBI's figure comes out to be an unimpressive 0.09 while that of the SEC is 0.52. Also the ratio for action taken to investigations made is quite low for SEBI (e.g. 1 out of 24 cases of issue related manipulation in 1996-97, 7 out of 27 in the 5 year period 1999-2004). As for appeals before higher authorities – the Securities Appellate Tribunal (SAT) or the Finance Ministry – in 30 to 50% of cases, the decision goes against SEBI. Though SEBI has had some success prosecuting intermediaries, it has failed to convince the SAT in its proceedings against corporate insiders and major market

players. Thus the quality of public enforcement of securities laws appears to be a problem in India.

The institution of Debt Recovery Tribunals (DRTs) in the early 90's and the passing of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act in 2002 were aimed at remedying the slowness of the judicial process. The SARFAESI Act paves the way for the establishment of Asset Reconstruction Companies (ARCs) that can take the Non-Performing Assets (NPAs) off the balance sheets of banks and recover them. Operations of these ARCs would be restricted to asset reconstruction and securitization only. It also allows banks and financial institutions to directly seize assets of a defaulting borrower who defaults fails to respond within 60 days of a notice. Borrowers can appeal to DRTs only after the assets are seized and the Act allows the sale of seized assets. The SARFAESI Act itself, however, does not provide a final solution to the recovery problems. With the borrower's right to approach the DRT, the DRAT (Debt Recovery Appellate Tribunal) and, in some cases, even a High Court, a case can easily be dragged for three to four years during which time the sale of the seized asset cannot take place. It is perhaps too soon to evaluate its effects on reducing defaults but public sector banks have had some success recovering their loans by seizing and selling assets since the Act came into existence. The recovery rates of bad debts have registered a sharp rise in 2005-06, but it is difficult to separate the contribution of the booming economy to this from that of the improvement in corporate governance.

Another positive development in the area of disclosure has been the adoption of Accounting Standards (AS) 18 by the Institute of Chartered Accountants in India (ICAI) in 2001 which, among other things, makes reporting of "related party transactions" by Indian companies mandatory. Related parties include holding and subsidiary companies, key management personnel and their direct relatives, "parties with control exist" which includes joint ventures and fellow subsidiaries; and other parties like promoters and employee trusts. Transactions include purchase/sale of goods and assets, borrowing, lending and leasing, hiring and agency arrangements, guarantee agreements, transfer of research and development and management contracts. This step has gone a long way in

bringing transparency to the dealings of Indian companies, particularly the group-affiliates.

The area of the Ease of Doing Business index where India fares considerably poorly is that of closing a business. India has the dubious distinction of being among the countries where it takes the *longest time to go through bankruptcy in the world* (10 years on an average). Consequently recovery rates are very low too – below 12% as opposed to about 74% in OECD countries. Kang and Nayar (2004) point out that there is no single comprehensive and integrated policy on corporate bankruptcy in India in the lines of Chapter 11 or Chapter 7 US bankruptcy code. Overlapping jurisdictions of the High Courts, the Company Law Board, the Board for Industrial and Financial Reconstruction (BIFR) and the Debt Recovery Tribunals (DRTs) contribute to the costs and delays of bankruptcy. The Companies (Second Amendment) Act, 2002 seeks to address these problems by establishing a National Company Law Tribunal and stipulating a time-bound rehabilitation or liquidation process to within less than two years as well as bringing about other positive changes in the bankruptcy code.

III.3 Stock Exchanges in India

India currently has two major stock exchanges: the National Stock Exchange (NSE) established in 1994 and the Bombay Stock Exchange (BSE), the oldest stock exchange in Asia, established in 1875. Up to 1992, BSE was a monopoly, marked with inefficiencies, high costs of intermediation, and manipulative practices, so that external market users often found themselves disadvantaged. The economics reforms created four new institutions: the Securities and Exchanges Board of India (SEBI), the National Stock Exchange (NSE), the National Securities Clearing Corporation (NSCC), and the National Securities Depository (NSDL). The National Stock Exchange (NSE), a limited liability company owned by public sector financial institutions, now accounts for about two-thirds of the stock exchange trading in India, and virtually all of its derivatives trading.

The National Securities Clearing Corporation (NSCC) is the legal counter-party to net obligations of each brokerage firm, and thereby eliminates counter-party risk and possibility of payments crises. It follows a rigorous ‘risk containment’ framework involving collateral and intra-day monitoring. The NSCC, duly assisted by the National

Securities Depository (NSDL), has an excellent record of reliable settlement schedules since its inception in the mid-nineties.

The Securities and Exchanges Board of India (SEBI) has introduced a rigorous regulatory regime to ensure fairness, transparency and good practice. For example, for greater transparency, SEBI has mandated mandatory disclosure for all transactions where total quantity of shares is more than 0.5% of the equity of the company. Brokers disclose to the stock exchange, immediately after trade execution, the name of the client in addition to trade details; and the Stock exchange disseminates the information to the general public on the same day.

The new environment of transparency, fairness and efficient regulation led BSE, in 1996, to also become a transparent electronic limit order book market with an efficient trading system similar to the NSE. Equity and equity derivatives trading in India has skyrocketed to record levels over the course of the last ten years.

In 2005, about 5000 companies were listed and traded on NSE and/or BSE. While the dollar value of trading on the Indian stock exchanges is much lower than the dollar value of trading in Europe or in the US, it is important to note that the number of equity trades on BSE/NSE is *ten* times greater than that of Euronext or London, and of the same order of magnitude as that of NASDAQ/NYSE. Similarly, the number of derivatives trades on NSE is several times greater than that of Euronext/ London, and of an order of magnitude comparable to US derivatives exchanges. The number of trades is an important indicator of the extent of investor interest and investor participation in equities and equity trading, and emphasizes the crucial importance of corporate governance practices in India

III.4 Enforcing Corporate Governance Laws

Enforcement of corporate laws remains the soft underbelly of the legal and corporate governance system in India. The World Bank's Reports on the Observance of Standards and Codes (ROSC) in its 2004 report on India (World Bank (2004)) found that while India observed or largely observed most of the principles, it could do better in areas like the contribution of nominee directors from financial institutions to monitoring and supervising management; the enforcement of certain laws and regulations like those

pertaining to stock listing in major exchanges and insider trading as well as in dealing with violations of the Companies Act – the backbone of the corporate governance system in India. Some of the problems arise because of unsettled questions about jurisdiction issues and powers of the SEBI.

India ranks second last in the world in enforcing contracts (Table xx Panel A). Delays and costs of court cases are the major factors. By contrast, China ranks among the top 20 countries in this respect.

III.5 Indian Courts – an assessment

Djankov et al (2003) (DLLS) in their analysis of “formalism” in the judicial process around the world, gave India a score of 3.34 on its formalism index, higher than the English-origin average of 2.76 but slightly lower than the average for all countries, 3.53. Among the 42 English-origin countries in their sample, India has the 11th highest level of formalism. India has the 16th longest process of evicting a tenant (212 days) among English common law origin countries (average 199 days). For collection on a bounced check, however, India has the 16th *shortest* duration (106 days) among English common law origin countries (average 176 days). In both cases India’s total duration of the process is significantly shorter than the overall mean duration of all the 109 countries considered (254 for eviction of tenant and 234 for collecting on bounced check). Thus, in spite of its formalism, Indian courts do not seem to perform that poorly (relatively speaking) on these two types of cases considered.

The DLLS assurance notwithstanding, case arrears and decade-long legal battles are commonplace in India. In spite of having around 10,000 courts (not counting tribunals and special courts), India has a serious shortfall of judicial service. While the USA has 107 judges per million citizens, Canada over 75, Britain over 50 and Australia over 41, for India the figure is slightly over 10 (Debroy (1999)). In April 2003, for instance, the Supreme Court of India had close to 25,000 cases pending before it (Parekh 2001). Hazra and Micevska (2004) report that there are about 20 million cases pending in lower courts and another 3.2 million cases in high courts. A termination dispute contested all the way can take up to 20 years for disposal. Writ petitions in high courts can take between 8 and 20 years for disposal. About 63% of pending civil cases are over a year

old and 31% are over 3 years old. Automatic appeals, extensive litigation by the government, underdeveloped alternative mechanisms of dispute resolution like arbitration, the shortfall of judges all contribute to this unenviable state of affairs in Indian courts. Since the same courts try both civil and criminal matters and the latter gets priority, economic disputes suffer even greater delays.

IV. Survey Evidence on small firms in China and India

The overall institutional features captured in the foregoing macro analysis are reflected in their effects on small business as revealed by survey evidence of small firms in China and India. Both countries have exhibited remarkable growth in recent years. However, when it comes to financing small and medium firms, that form the bulwark of growth and employment, financing seems to be driven in a major way by informal arrangements rather than legal assurances.

A. China

AQQ provides survey information on how firms in the Private Sector raise funds, their various growth paths, and the alternative mechanisms employed by owners that can substitute for formal corporate governance mechanisms.

It is perhaps not surprising that during the start-up stage, funds from founders' family and friends are an important source of financing. Moreover, funds from friends, in the form of private loans and equity, are also very important during the firm's subsequent growth period. In some cases there are no formal written contracts between the friends/investors and the entrepreneurs, implying that reputation- and relationship-based implicit contractual agreements have worked effectively. Internal financing, in the form of retained earnings, is also high – survey firms retained an average of 55% to 65% of their net income for reinvestment during the initial two to three years of existence.

Funding from financial intermediaries is one of the most important sources for the surveyed firms. In terms of start-up financing, over 40% of firms surveyed regard "banks" as either a "very important" (25-50% of total funding needs) or an "extremely important" (more than 50% of total funding needs) financing source. On average, each surveyed firm currently has a loan relationship with 4.3 banks or other financial

intermediaries, with the maximum (minimum) being 12 (1). Fixed assets are the most popular form of collateral, with third-party guarantees being the second-most popular form. These facts imply that financial institutions, state or private, seem to understand the risk of start-up firms and try to “price” this risk in their loan contracts. In a few cases the local government provides the third-party guarantee, indicating an active role played by government officials in supporting the growth of firms.

A few other channels are important sources of financing during a firm’s growth period. In particular there is investment from “ethnic Chinese” (investors from Hong Kong, Taiwan, and overseas Chinese), mostly in the form of private loans and equity. This financing source, as compared to investment from non-Chinese foreign direct investment (FDI), relies on the relationship between the investors and the entrepreneurs. Other sources include trade credits among business partners, state and local budgets, and FDIs, while investment from venture capitalists (VC) is not widely used during either the start-up stage or the growth period. When asked about which financing channels are least costly, while most of the surveyed firms point to short- and long-term bank loans, almost 60% of firms indicate trade credits among business partners.

Competition is stiff in this sector. Over 60% (30%) of firms believe that if their own firm were not run efficiently and were to find itself in financial distress, it is “possible” (“very likely”) its assets would be purchased by another firm or investor; no one answered it is “not possible” for this to occur. 40% of surveyed firms believe that if their firm were not operating efficiently, within three to six months 20% of its market share would be taken away, while 80% of firms’ founders/executives believe the entire market share of the firm would be taken away in two years. When asked about what type of losses concern them the most if the firm were to fail, every firm’s founders/executives (100%) said reputation loss is a major concern, while only 60% of them said economic losses are of major concern.

The success of a firm in the Private Sector in China depends crucially on the support from local government. Over 40% of survey firms state the local government “supports” the growth of the firm without demanding profit sharing, while for some other firms, the government is either a partial owner or demands profit sharing without investing in the. The supportive attitude of the local government toward firms in the

Private Sector is remarkable considering the fact that the Chinese government is widely regarded as corrupt and disrespectful of property rights.

B. India

ACDQQ conduct similar surveys to study the extent to which the formal legal environment directly supports and regulates businesses, particularly small and medium enterprises which form an increasingly important part of the Indian industry. This seems to indicate that the small firms sector operate in a system virtually governed through informal mechanisms based on trust, reciprocity and reputation with little recourse to the legal system and deals with widespread corruption.

Over 80% of the firms surveyed needed a license to start a business, and for about half of them obtaining it was a difficult process. Government officials were most often the problem solved usually through payment of bribes or friends of government officials to negotiate. Clearly, networks and connections are of crucial importance in negotiating the government bureaucracy.

As for conducting day-to-day business, legal concerns are far less important to them than the unwritten codes of the informal networks in which firms operate. In cases of default and breach of contract, the primary concern is loss of reputation, followed closely by loss of property, with the fear of legal consequences being the least important concern.

About half of the firms surveyed did *not* have a regular legal adviser and less than half of those that did had lawyers in that capacity. For mediation in a business dispute or to enforce a contract, the first choice was “mutual friends or business partners”. Only 20% of the respondents mentioned going to courts as the first option indicating that the legal system, while not as effective as the informal mechanisms, is not altogether absent.

The informal system, however, is not perfect in resolving disputes and has its costs. About half of the respondents experienced a breach of contract or non-payment with a supplier or major customer in the past three years. Over a third of them renegotiated while over 40% did nothing but continued the business relationships with the offending parties.

In general, the business environment of the SME sector is marked by strong

informal mechanisms like family ties, reputation and trust. Legal remedies though present, are far less important than the rules of the informal networks.

V. Concluding Observations

In this paper we examine and compare the formal systems of law and finance in China and India and the alternative institutional arrangements and governing mechanisms in the two countries, and the relation between the development of these systems and their economic growth.

With one of the largest and fastest growing economies in the world, China differs from most of the countries studied in the law, institutions, finance, and growth literature, and is an important counterexample to the existing findings: Its legal and financial systems as well as institutions are all underdeveloped, but its economy has been growing at a very fast rate. More importantly, the growth in the Private Sector, where applicable legal and financial mechanisms are arguably poorer than those in the State and Listed sectors, is much faster than that of the other sectors. The system of alternative mechanisms and institutions plays an important role in supporting the growth in the Private Sector, and they are good substitutes for standard corporate governance mechanisms and financing channels.

India too has a special place among the countries studied in the law, institutions, finance, and growth literature. Despite its English common-law origin and British-style judicial system and democratic government, there is enough documented evidence to suggest that the effective level of investor protection and the quality of legal institutions in India are quite weak. We examine the legal and business environment in which Indian firms operate and compare our results to those from other countries.

Growth in both these countries appears to have taken place *in spite of* their legal and institutional settings rather than because of these factors. Survey evidence points out that in both countries, small firms rely extensively on non-formal and relational avenues of fund-raising symptomatic of poor effective investor protection.

The results of this paper have important implications for future research and policy. As legal and institutional reform in India and China gradually fill the gaps in investor protection, should they seek to supplant the relational arrangements that seem to work well in

these countries or should policymakers strive to sanctify such arrangements with legal recognition. Are Western-style laws and institutions the universal answer for promoting growth or do the country-specific solutions to institutional lacunae provide better alternatives? It is important to answer these broader questions before embarking on wide-ranging legal and institutional reforms – in China, India as well as elsewhere in the world.

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Table 1 The Largest 20 Economies in the World: GDP and Growth

Rank	GDP in 2006 (simple exchange rates)		GDP in 2006 (PPP*)		GDP growth: 1990-2006 (constant prices)		Per capita GDP growth: 1990-2006** (constant prices)	
	Country /Region	US\$ billion	Country /Region	Int'l \$ billion	Country /Region	Annual growth	Country /Region	Annual growth
1	U.S.	13,245	U.S.	13,021	China	10.2%	China	9.2%
2	Japan	4,367	China	9,984	Vietnam	7.6%	Vietnam	5.9%
3	Germany	2,897	Japan	4,171	Malaysia	6.2%	S. Korea	4.8%
4	China	2,630	India	4,159	India	6.1%	Taiwan	4.5%
5	U.K.	2,374	Germany	2,559	Korea	5.5%	India	4.2%
6	France	2,232	U.K.	2,122	Taiwan	5.3%	Malaysia	3.7%
7	Italy	1,853	France	1,935	Bangladesh	5.2%	Poland	3.7%
8	Canada	1,269	Italy	1,791	Sri Lanka	4.9%	Sri Lanka	3.7%
9	Spain	1,226	Russia	1,727	Sudan	4.9%	Thailand	3.7%
10	Brazil	1,068	Brazil	1,701	Thailand	4.7%	Bangladesh	3.1%
11	Russia	979	Spain	1,215	Pakistan	4.4%	Indonesia	2.9%
12	S. Korea	888	Mexico	1,172	Iran	4.4%	Iran	2.8%
13	India	887	Canada	1,156	Egypt	4.3%	Peru	2.7%
14	Mexico	840	S. Korea	1,156	Indonesia	4.3%	Sudan	2.7%
15	Australia	755	Indonesia	960	Peru	4.3%	Argentina	2.6%
16	Netherlands	663	Taiwan	691	Turkey	3.9%	Spain	2.2%
17	Belgium	394	Australia	680	Argentina	3.8%	Egypt	2.2%
18	Turkey	392	Turkey	661	Poland	3.7%	Turkey	2.2%
19	Sweden	385	Argentina	621	Philippines	3.6%	Pakistan	2.1%
20	Switzerland	377	S. Africa	606	Australia	3.3%	U.K.	2.1%

Notes: * 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).

** : Countries with population less than 20 million or GDP less than US\$ 20 billion are excluded from this ranking.

Source: IMF World Economic Outlook Database 2007.

Table 2 Comparing Legal Systems and Institutions

This table compares legal systems and institutions related to investor protection in India, LLSV country-groups (sorted by legal origins) and other large emerging economies. All the emerging economies included in this table are from Table 1 for which information was available. Notation (E), (F), or (G) against a country indicates that the said country belongs to English, French, or German legal origin groups. Creditor rights scores are from DMS (2007) and Anti-director rights scores are from DLLS (2007). Corruption Perception Index values, from Transparency International (2006), are based on the surveys of firms on whether corruption is prevalent when conducting business in each country and ranges from 0 to 10, with 0 meaning most corrupt and 10 meaning least corrupt. Legal Formalism Index, from DLLS (2003), measures substantive and procedural statutory intervention in judicial cases at lower-level civil trial courts; the index ranges from 0 to 7, where a higher score means greater formalism or a higher level of intervention in the judicial process. Legality Index, from Berkowitz, Pistor, and Richard (2003), uses five legality proxies (each range from 0 to ten) from LLSV(1997, 1998) and principal components analysis to aggregate the individual legality proxies into a single legality Index; the index ranges from 0 to 21 with a higher score meaning a better legal environment. Disclosure Requirement index, from LLS (2006), equals the arithmetic mean of scores (zero or one; one means disclosure required) on six dimensions of disclosure requirements: (1) Prospect; (2) Compensation; (3) Shareholders; (4) Inside Ownership; (5) Contracts Irregular; (6) and Transactions; the overall Index ranges from zero to one, with zero meaning no disclosure requirement for anything, and one meaning disclosure of everything. Earnings Management index, from Leuz, Nanda, and Wysocki (2003), is the average rank across four measures of earnings management; a higher score implies *more* earnings management.

	Creditor Rights	Anti-Director Rights	Corruption Perception Index	Legal Formalism Index	Legality Index	Disclosure Requirement	Earnings Management Score
<i>Panel A China, India and LLSV Country Groups</i>							
China	2	1	3.3	3.4	N/a	N/a	N/a
India (E)	2	5	3.3	3.51	11.35	0.92	19.1
English-origin Ave.	2.28	4.19	5.33	3.02	15.56	0.78	11.69
French-origin Ave.	1.31	2.91	4.39	4.38	13.11	0.45	19.27
German-origin Ave.	2.33	3.04	5.58	3.57	15.53	0.6	23.6
Nordic-origin Ave.	1.75	3.8	9.34	3.32	16.42	0.56	10.15
Sample Ave.	1.8 ^a	3.37 ^b	5.24	3.58 ^c	14.98	0.60 ^d	16
<i>Panel B Other Large Emerging Markets (EMs)</i>							
Argentina (F)	1	2	2.9	5.49	10.31	0.5	N/a
Brazil (F)	1	5	3.3	3.83	11.43	0.25	N/a
Egypt (F)	2	3	3.3	3.6	10.14	0.5	N/a
Indonesia (F)	2	4	2.4	3.88	8.37	0.5	18.3
Korea (South)(G)	3	4.5	5.1	3.33	12.24	0.75	26.8
Malaysia (E)	3	5	5	3.21	13.82	0.92	14.8
Mexico (F)	0	3	3.3	4.82	10.79	0.58	N/a
Pakistan (E)	1	4	2.2	3.74	8.27	0.58	17.8
Peru (F)	0	3.5	3.3	5.42	9.13	0.33	N/a
Philippines (F)	1	4	2.5	5	7.91	0.83	8.8
S. Africa (E)	3	5	4.6	3.68	11.95	0.83	5.6
Sri Lanka (E)	2	4	3.1	3.89	9.68	0.75	N/a
Taiwan (G)	2	3	5.9	3.04	14.26	0.75	22.5
Thailand (E)	2	4	3.6	4.25	10.7	0.92	18.3
Turkey (F)	2	3	3.8	3.49	9.88	0.5	N/a
Average of EMs	1.67	3.80	3.62	4.04	10.59	0.63	16.61

Notes: ^a: DMS (2007) average; ^b: DLLS (2007) average; ^c: DLLS (2003) average; ^d: LLS (2006) average.

Table 3 Comparing Financial Systems: Banks and Markets

This table compares various aspects of financial markets and banking sector of the Indian financial system with those of other emerging countries and LLSV country groups (sorted by legal origins). All the measures are taken from Levine (2002) or calculated from the World Bank Financial Database using the definitions in Levine (2002). We use 2005 figures for all countries.

Measures	Size of Banks and Markets				Structure Indices: Markets vs. banks**				Financial Development*** (banking and market sectors)		
	Bank credit/ GDP	Bank Over- head cost/ Bank assets	Value traded /GDP	Market cap. /GDP	Structure Activity	Structure Size	Structure Efficien- cy	Structure Regula- tory	Finance Activ- ity	Finance Size	Finan- ce Effici- ency
Panel A: China, India and LLSV Country Groups											
China	8	0.01	0.26	0.32	-0.16	0.03	-5.87	16	-2.51	-2.31	3.19
India	0.37	0.02	0.56	0.6	0.43	0.49	-4.44	10	-1.57	-1.51	3.3
English origin*	0.66	0.04	1.53	1.31	0.87	0.76	-3.05	2.26	-0.21	-0.14	3.71
French origin*	0.77	0.04	0.6	0.66	-0.43	-0.05	-4.02	8.5	-1.45	-1.08	2.5
German origin*	1.06	0.02	1.05	0.82	-0.16	-0.37	-4.01	9.65	-0.08	-0.27	3.9
Nordic origin*	1.05	0.02	0.99	0.85	-0.07	-0.2	-3.86	7.74	-0.08	-0.21	3.71
Sample Ave.	0.78	0.03	1.17	1.02	0.28	0.28	-3.55	8.53	-0.5	-0.5	3.48
Panel B Other Large Emerging Markets (EMs)											
Argentina (F)	0.1	0.08	0.09	0.3	-0.12	1.07	-4.95	7	-4.7	-3.51	0.13
Brazil (F)	0.29	0.08	0.19	0.51	-0.4	0.56	-4.2	10	-2.88	-1.91	0.93
Egypt (F)	0.45	0.02	0.28	0.66	-0.45	0.39	-5.13	13	-2.06	-1.22	2.61
Indonesia (F)	0.22	0.03	0.15	0.27	-0.4	0.22	-5.48	Na	-3.45	-2.83	1.63
Korea (G)	Na	0.02	1.53	0.73	Na	Na	-3.73	Na	Na	Na	4.57
Malaysia (E)	1.03	0.01	0.38	1.44	-0.99	0.33	-5.22	10	-0.93	0.39	3.3
Mexico (F)	0.15	Na	0.07	0.27	-0.75	0.61	Na	12	-4.6	-3.24	Na
Pakistan (E)	0.27	0.02	1.27	0.34	1.56	0.24	-3.58	10	-1.08	-2.4	4.06
Peru (F)	0.18	0.07	0.03	0.36	-1.93	0.7	-6.35	8	-5.39	-2.75	-0.98
Philippines (F)	0.26	0.06	0.07	0.35	-1.32	0.29	-5.51	7	-3.98	-2.37	0.21
S. Africa (E)	0.8	0.05	0.84	2.14	0.04	0.98	-3.12	8	-0.4	0.54	2.76
Sri Lanka (E)	0.3	0.04	0.05	0.2	-1.81	-0.4	-6.22	7	-4.24	-2.82	0.16
Taiwan (G)	Na	0.02	1.79	1.35	Na	Na	-3.62	12	Na	Na	4.78
Thailand (E)	0.73	0.02	0.51	0.68	-0.37	-0.07	-4.72	9	-0.99	-0.7	3.36
Turkey (F)	0.21	0.06	0.55	0.36	0.96	0.52	-3.4	12	-2.14	-2.57	2.21
Ave. for EMs	0.38	0.04	0.52	0.66	-0.46	0.42	-4.66	9.62	-2.83	-1.95	2.12

Notes: * = the numerical results for countries of each legal origin group is calculated based on a value- (GDP of each country) weighted approach;

** : Structure indices measure whether a country's financial system is market- or bank-dominated; the higher the measure, the more the system is dominated by markets. Specifically, "structure activity" is equal to $\log(\text{value traded}/\text{bank credit})$ and measures size of bank credit relative to trading volume of markets; "structure size" is equal to $\log(\text{market cap}/\text{bank credit})$ and measures the size of markets relative to banks; "structure efficiency" is equal to $\log(\text{market cap ratio} \times \text{overhead cost ratio})$ and measures the relative efficiency of markets vs. banks; finally, "structure regulatory" is the sum of the four categories in regulatory restriction, or 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.

*** : Financial development variables measure the entire financial system (banking and market sectors combined), and the higher the measure, the larger or more efficient the financial system is. Specifically, "finance activity" is equal to $\log(\text{total value traded ratio} \times \text{private credit ratio})$, "finance size" is equal to $\log(\text{market cap ratio} \times \text{bank private credit ratio})$, and "finance efficiency" is equal to $\log(\text{total value traded ratio}/\text{bank overhead cost})$.

Table 4. A comparison of the largest stock markets in the world (2006)

Rank	Stock Exchange	Total Market Cap (US\$ million)	Concentration (%)	Turnover Velocity (%)
1	NYSE Group	15421167.9	26.6	134.3
2	Tokyo SE	4,614,068.8	58	125.8
3	Nasdaq	3,865,003.6	82.1	269.9
4	London SE	3,794,310.3	84.8	124.8
5	Euronext	3,708,150.1	57	116.4
6	Hong Kong Exchanges	1,714,953.3	68.4	62.1
7	TSX Group	1,700,708.1	67.5	76.4
8	Deutsche Börse	1,637,609.8	77.1	173.7
9	BME Spanish Exchanges	1,322,915.3	167
10	Swiss Exchange	1,212,308.4	74.1	130.2
11	OMX	1,122,705.0	79.1	134.5
12	Australian SE	1,095,858.0	...	88.4
13	Borsa Italiana	1,026,504.2	65.6	162.9
14	Shanghai SE	917,507.5	31.5	153.8
15	Korea Exchange	834,404.3	57.6	171.4
16	Bombay SE	818,878.6	75.2	31.9
17	National Stock Exchange India	774,115.6	68.6	67.8
18	JSE	711,232.3	66.5	48.9
19	Sao Paulo SE	710,247.4	54.6	45.5
20	Taiwan SE Corp.	594,659.4	45.3	141.7
21	Singapore Exchange	384,286.4	41.8	58.2
22	Mexican Exchange	348,345.1	61.7	29.6

Notes: All figures are from <http://www.world-exchanges.org>, the web site of the international organization of stock exchanges. 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%). Turnover velocity is the total turnover for the year expressed as a percentage of the total market capitalization.

Table 5-A. 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: AQQ.

Table 5-B. 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)	10.9 (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: AQQ

Table 6 Panel A: Ease of Doing Business Rankings

Ease of...	China			India		
	2008	2007	Change	2008	2007	Change
Doing Business	83	92	+9	120	132	+12
Starting a Business	135	128	-7	111	93	-18
Dealing with Licenses	175	175	0	134	133	-1
Employing Workers	86	86	0	85	83	-2
Registering Property	29	28	-1	112	108	-4
Getting Credit	84	94	+10	36	62	+26
Protecting Investors	83	81	-2	33	32	-1
Paying Taxes	168	173	+5	165	158	-7
Trading Across Borders	42	31	-11	79	142	+63
Enforcing Contracts	20	20	0	177	177	0
Closing a Business	57	76	+19	137	135	-2

Table 6 Panel B: Procedures and Costs Details

<u>Indicator</u>	<u>China</u>	<u>India</u>	<u>OECD</u>
<i>Starting a Business</i>			
Procedures (number)	13	13	6.0
Duration (days)	35	33	14.9
Cost (% GNI per capita)	8.4	74.6	5.1
Paid in Min. Capital (% of GNI per capita)	190.2	0.0	32.5
<i>Dealing with Licenses</i>			
Procedures (number)	37	20	14.0
Duration (days)	336	224	153.3
Cost (% of income per capita)	840.2	519.4	62.2
<i>Employing Workers</i>			
Difficulty of Hiring Index	11	0	25.2
Rigidity of Hours Index	20	20	39.2
Difficulty of Firing Index	40	70	27.9
Rigidity of Employment Index	24	30	30.8
Non-wage labor cost (% of salary)	44	17	20.7
Firing costs (weeks of wages)	91	56	25.7
<i>Registering Property</i>			
Procedures (number)	4	6	4.9
Duration (days)	29	62	28.0
Cost (% of property value)	3.6	7.7	4.6
<i>Getting Credit</i>			
Legal Rights Index	3	6	6.4

Credit Information Index	4	4	4.8
Public registry coverage (% adults)	49.2	0.0	8.6
Private bureau coverage (% adults)	0.0	10.8	59.3

Protecting Investors

Disclosure Index	10	7	6.4
Director Liability Index	1	4	5.1
Shareholder Suits Index	4	7	6.5
Investor Protection Index	5.0	6.0	6.0

Paying Taxes

Payments (number)	35	60	15.1
Time (hours)	872	271	183.3
Profit tax (%)	19.9	19.6	20.0
Labor tax and contributions (%)	46.0	18.4	22.8
Other taxes (%)	8.0	32.5	3.4
Total tax rate (% profit)	73.9	70.6	46.2

Trading Across Borders

Documents for export (number)	7	8	4.5
Time for export (days)	21	18	9.8
Cost to export (US\$ per container)	390	820	905.0
Documents for import (number)	6	9	5.0
Time for import (days)	24	21	10.4
Cost to import (US\$ per container)	430	910	986.1

Enforcing Contracts

Procedures (number)	35	46	31.3
Duration (days)	406	1420	443.3

Cost (% of claim)	8.8	39.6	17.7
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Closing a Business

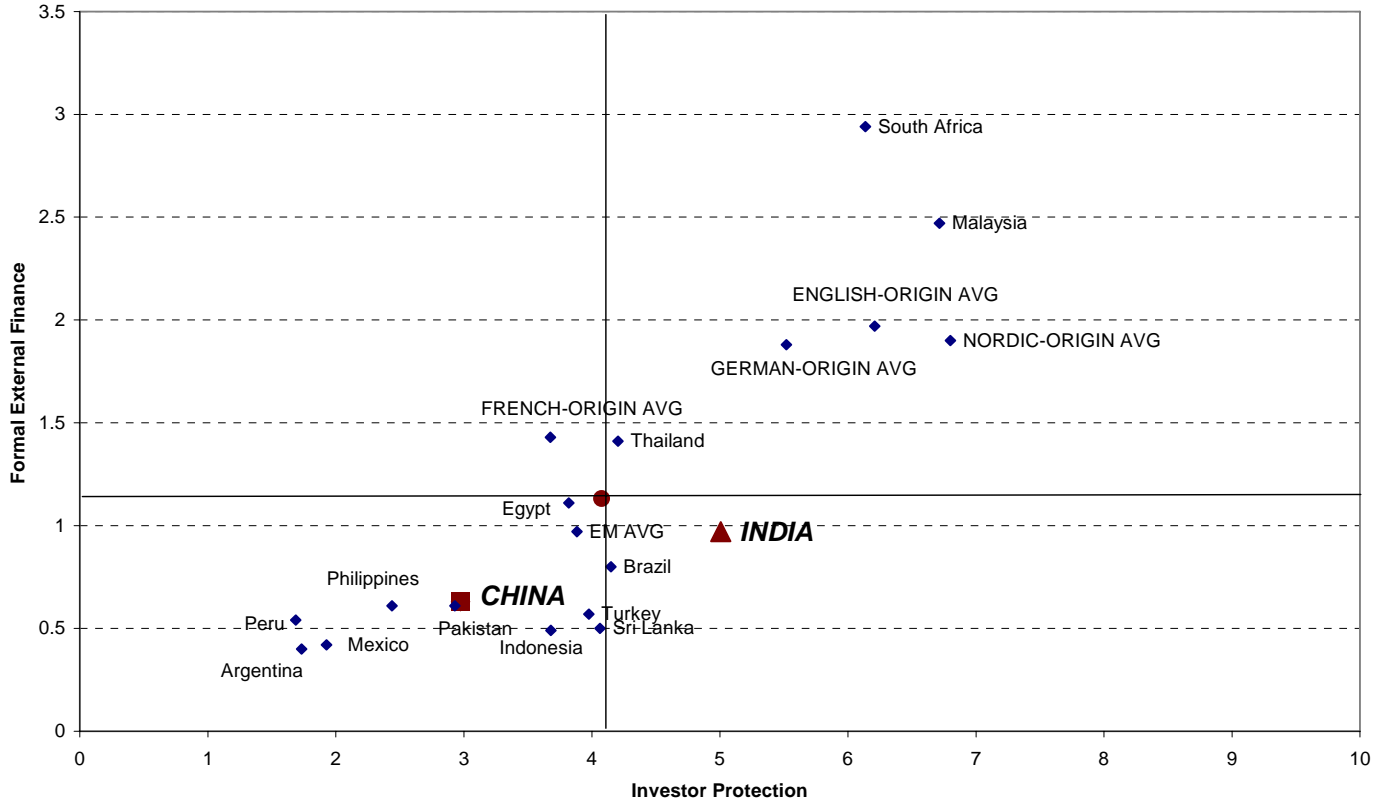
Time (years)	1.7	10.0	1.3
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Cost (% of estate)	22	9	7.5
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Recovery rate (cents on the dollar)	35.9	11.6	74.1
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Figure 1 Investor Protection and External Financing – International Comparison

The figure compares India’s legal system and external financial markets to those of LLSV country groups and the other emerging markets (as of 2005) as well as various legal origin country-groups. The score on the horizontal axis measures overall investor protection in a country. It is the sum of creditor rights, anti-director rights, corruption perception index, and legality index *minus* the legal formalism index from Table 2. For China, the score on the legality index was not available. Hence, we have used the Rule of Law score from International Country Risk Guide instead. Each score is re-scaled on a 0 to 10 scale before being included in the final sum. The final sum is then rescaled on a 0 to 10 scale also. The vertical axis measures the (relative) size of that country’s external markets and is given by the sum of the ratios of (private) bank credit and market capitalization to GDP from Table 3. The solid horizontal and vertical lines represent the simple (un-weighted) sample means of all the data points shown in the graph.



Source: ACDQQ