

Chapter 9

Beyond Law Enforcement: Governing Financial Markets in China and Russia *

Katharina Pistor and Chenggang Xu

Introduction

This chapter explores the institutional conditions for the development of financial markets in emerging markets and transition economies. We focus on the development of the legal and regulatory framework for stock markets, but suggest that our framework would also be applicable to the law governing credit markets and banking institutions. Given the importance of financial markets for economic growth and development (McKinnon 1973), efforts to promote the development of such markets has been a corner stone of economic policies in transition economies. Not all countries, however, have been equally successful in creating sustainable financial markets. This is true even for countries that have followed blueprints of what are widely regarded best practices for governing financial markets. This chapter offers an explanation for why this may be the case.

We start from the premise that law is intrinsically incomplete, which implies that it is impossible to write a law that can unambiguously specify all potentially harmful actions. Because law is incomplete, law enforcement by courts may not always effectively deter violations. Rather than attempting the impossible task of completing the law, the effectiveness of law enforcement may be enhanced by reallocating lawmaking and law enforcement powers (LMLEP). In earlier work we showed that when law is highly incomplete and violations of the law may result in substantial harm, it is optimal to allocate law enforcement rights to regulators rather than courts (Pistor and Xu in press; Xu and Pistor 2003).

Similar solutions, which worked reasonably well in developed market economies with a long history of commercial law development, may, however, not work in transition economies. The reason is that transition economies face conditions that render enforcement by courts and regulators both ineffective. We identify two key conditions that undermine classic forms of law enforcement that have been tried and tested in developed market economies: the level of incomplete law, and the absence of reliable information. Transition economies have engaged in wholesale reforms of their legal systems. The scope and meaning of newly enacted laws, however, is difficult to discern from statutory law alone. Due to language, cultural and institutional differences case law from other countries that may help interpret the law is not easily transferable. Countries that transplant law from elsewhere, therefore, have little

or no access to interpretative sources, which makes transplanted laws further incomplete. Only after a substantial body of domestic case law has been developed will individuals as well as law enforcers know the reach and limits of the new law.

The more incomplete the law, the weaker its deterrence effect, as the uncertainties about the scope and meaning of law increase with higher levels of incompleteness. Moreover, courts in transition economies often lack capacity and experience to address new legal problems effectively, which aggravates the problem of incomplete law. Attempts to improve law enforcement by introducing a regulator may not work, primarily because effective regulation depends heavily on reliable information. Companies in transition economies face substantial problems in bringing previous accounting data, which were compiled on the basis of socialist accounting principles, in line with new accounting standards. Even when they do so, substantial concerns remain as to how accurately these new books reflect the intrinsic value of the firm. Moreover, the uncertainties that surround the conversion of accounting data creates possibilities for manipulation. As a result, the information that regulators obtain is much noisier than is the case in developed market economies. Over time information may become more reliable and intermediaries may enter the market that can help verify information--but before then, law enforcement by regulators will be ineffective and may even result in regulatory failure. Transition economies therefore face a fundamental

dilemma. They need to develop financial markets, and yet they lack the ingredients it takes to do so. Worst, recipes for law enforcement that have historically worked elsewhere may not help in the short to medium term. Unlike developed economies where extensive commercial law existed at the time financial markets emerged, in transition economies and newly emerging markets, law, legal institutions, and markets need to be created simultaneously.

An alternative strategy for transition economies is to use measures beyond law enforcement to initiate market development. This chapter suggests that an important strategy may be to access insiders' knowledge of a company's potential. This strategy is bound to be less transparent and raises concerns about the accountability of agents charged with selecting companies. Still, these problems can be controlled by ensuring that decisions are taken collectively and by allocating liability for wrongful decisions to those who participate in the selection process. If such checks are in place, measures beyond law enforcement may be less prone to corruption and regulatory capture than standard law enforcement strategies. The reason is that the same factors that render standard law enforcement strategies ineffective in transition economies, that is, highly incomplete law and low quality information, also give law enforcement agents ample room for discretion, which can be easily misused. Paradoxically, the appearance of standard law enforcement institutions and practices may disguise the fact that given the underlying problems of incomplete law and information problems, they broaden rather than reduce the

scope for corruption. By contrast, processes that may appear to be prone to corrupt practices, may be less vulnerable to misuse as long as other mechanisms, such as multiparty decision making and competition, are in place to reduce the possible scope of misuse.

We use the experience of China and Russia to exemplify two different strategies in trying to jump start financial market development. In both countries the process started in the early 1990s. Russia began the process of financial market development by privatizing thousands of companies and distributing their shares to the public. At the time, courts were the only enforcement agents. By 1994 a securities commission was established. Its powers were limited at the beginning but expanded over time. Available data suggest that both courts and regulators have been quite active in enforcing the law. Financial market development in Russia has, however, been slow. Most of the companies that were privatized in the early 1990s have never been traded. The market is dominated by companies trading in oil, mining, and energy, that is, companies where the underlying assets are sufficiently valuable to balance concerns about lack of information and reliable governance structures. In fact, stocks of listed companies move together, suggesting that investors pay little attention to firm-specific information.

In China, by contrast, virtually all of the companies that are listed are partly state-owned. The legal framework developed in the early 1990s established an elaborate merit system for companies wishing to issue shares to

the public. This system was, however, replaced by a quota system. Under the quota system, a certain volume of funds to be raised by state-owned enterprises in the form of equity was allotted to regions and or ministries, which in turn were responsible for selecting the companies for this program. Given the increasing scarcity of bank loans, access to the equity markets was attractive to companies. The risk of bad decisions was borne not only by investors, but also by agents responsible for selecting companies, because they were forced to bail out companies that failed on the market and faced lower quotas in the future. The number of listed companies in China today is much higher than in Russia. Manufacturing companies dominate the market. Most strikingly, increasingly independent stock movements of listed companies suggest that more firm-specific information may be available to investors.

We recognize that incomplete law and information problems may not be the only factors that explain the divergent experiences of Russia and China in developing financial markets. The goal of this chapter is to offer a theory that helps explain why standard enforcement practices work less well in transition economies. We suggest that the evidence we present from Russia and China is consistent with our theory, but we do not claim that we can fully rule out other explanations.

Law Enforcement under Incomplete Law

In earlier work we developed the theory of incomplete law (Pistor and Xu in press). We argued that law is intrinsically incomplete. Even the best, social welfare maximizing, lawmaker cannot write law that is fully complete, because lawmakers cannot foresee all future contingencies. A lawmaker (court, legislature, etc.) may choose to write a relatively more or less complete law, but fundamentally cannot escape the problem that even the best efforts will render the law incomplete. Given that law is incomplete, the power to address future contingencies, that is, the residual LMLEP have to be allocated to maintain effective law enforcement. Although this will not result in full deterrence (after all, law remains incomplete), law enforcement can be enhanced.

If law were complete, that is, if a law could stipulate unambiguously all future contingencies, law could fully deter harmful actions. The key task for such a law would be to stipulate the appropriate level of punishment. Existing theories predict that a rational individual with a full knowledge of the--complete--law will not violate the law. Indeed, much of the traditional literature on law enforcement (Becker 1968; Stigler 1970; Polinsky and Shavell 2000) focuses on the appropriate level of punishment and treats law implicitly as complete. By contrast, if law is incomplete, law cannot effectively deter. We argue that in this second best world of incomplete law, legal systems need to allocate LMLEP to deal with future contingencies that were unanticipated at the time the law was made in order to enhance the effectiveness of law enforcement. In the absence of the allocation of LMLEP, many actions will not

be sanctioned, even if they result in substantial harm. Legislative change may make law more complete after assembling sufficient expertise, but this will take effect only in the future. Moreover, new actions or factual situations the revised law did not contemplate will undoubtedly arise, leaving it once more incomplete.

Given that law is incomplete, a crucial question is who should hold the power to interpret and/or adapt law in light of new circumstances. We argue that the allocation of LMLEP should be related to the lawmaking and law enforcement functions that different agents perform. In what follows, we attribute particular functions to different agents, which are admittedly stylized, but closely resemble the functions such agents perform in developed market economies. Legislatures are agents that make law *ex ante*, but typically do not exercise any law enforcement powers. Courts usually make law *ex post*, that is, after the critical facts of a case have been revealed. However, case law once made also has *ex ante* implications for actions taken in the future. Courts also exercise law enforcement powers. More importantly, courts enforce law only after a party other than the court brings an action. This party may be the victim, or it may be a state agent, such as a prosecutor or administrative agency. We therefore call courts reactive as opposed to proactive law enforcers. This design feature is crucial for courts to function as neutral arbiters.

Regulators also combine lawmaking and law enforcement functions. Just as legislatures, they make law *ex ante*. Unlike legislatures, regulators are

typically vested only with limited lawmaking powers defined by certain activities or sectors, but within the scope of their lawmaking powers, they can change the law more flexibly and with fewer procedural requirements. This allows them to be more responsive to socioeconomic or technological change than legislatures. However, a similar function could be achieved by setting up a special parliamentary committee to deal with a specialized area of the law. The distinctive feature of regulators thus lies not in greater flexibility and/or greater expertise as compared with legislatures, but in combining lawmaking with proactive law enforcement. In contrast to courts, regulators can take the initiative and launch an investigation, enjoin actions, or impose fines, and do not have to wait for others to bring such actions. These particular features make regulators potentially very powerful law enforcers. The very same features raise concerns, as regulators may misuse these powers and suppress potentially beneficial actions or even engage in rent-seeking activities. To optimize law enforcement it is therefore important to identify the conditions under which the benefits of regulators outweigh their potential costs.

When law is highly complete, law enforcement by courts in a reactive fashion has sufficient deterrence effect. By contrast, when law is incomplete it may be better to reallocate LMLEP to different agents. The optimal allocation of LMLEP is determined by many factors, including the level of expected harm and the cost of standardizing actions, which is crucial for regulators to enforce law effectively (for details of the analysis see Xu and Pistor 2003).¹ When firms

come to the market, investors face a lemons problem (Akerlof 1970). Incidents of misrepresentation of information may seriously discourage investments in shares as is evidenced by market crashes in response to the revelation of stock fraud schemes or systemic misrepresentation in financial statements--as most recently demonstrated by the market response to the discovery of financial misreporting at Enron, Worldcom, and so on. Thus the expected degree of harm--undermining the functioning of securities market--is high. Agents that can enjoin actions before harm has been done, are therefore of critical importance. Theoretically, courts may also enjoin actions before harm has been done. They can do this, however, only after an action has been brought by someone else, such as a current shareholder or potential investor, who needs the right incentives to launch a lawsuit at the right time. By contrast, regulators can initiate enforcement procedures on their own and do not need to wait for others to bring action. Disclosure rules for financial markets can be standardized at reasonable costs. Lawmakers can define the type of information that must be disclosed, and adapt these rules over time as market behavior changes or as it becomes apparent that investors require different information. Giving regulators this power ensures that disclosure rules will be adopted faster and more flexibly than leaving this task with legislatures. Moreover, regulators can use their expertise from law enforcement to decide on the need for further lawmaking activities.

In sum, under incomplete law legal systems that rely exclusively on reactive law enforcement by courts may experience deterrence failure and allocating LMLEP to regulators may be superior. The efficacy of regulators, however, hinges on their ability to rely on firm-specific information that can be standardized at relatively low cost. As we will show in the next section, if standardized information is not available or not reliable, legal systems and markets may suffer from regulatory failure. Therefore, alternative governance mechanisms may be needed.

Deterrence and Regulatory Failure in Transition Economies

In transition economies, the incompleteness of law problem and the information problem are both more severe than in developed market economies. Given the scale and scope of economic and legal reforms that are taking place concurrently, law in transition countries is bound to be highly incomplete, that is, its meaning and application to specific cases is largely untested and the scope of liability is therefore uncertain. As a result, court enforcement cannot effectively deter violations. The intuition for this argument, which we formalize in related work (Xu and Pistor 2003) is the following: Deterrence is said to work effectively, if the level of expected punishment is sufficiently high (Becker 1968). The Becker model is based on an implicit assumption that law is complete and that individuals refrain from carrying out harmful actions as long as the expected punishment is sufficiently high, because they know

unambiguously the expected punishment for all possible harmful actions. Arguably, the problem of incomplete law is even more severe in transition economies than at the outset of financial market development in the West. When England's stock market soared in the nineteenth century during the railway mania, there were no securities laws or regulators that would monitor the amount or type of information companies disclosed when issuing shares to the public. But there was a highly developed contract and tort law at hand. Although the principles of the law had been developed with different cases in mind, a sufficiently large body of case law was available to determine how these principles should be applied to the newly arising securities fraud and misrepresentation of information cases. Moreover, courts had experience with handling matters of a commercial nature and with adapting law over time in response to new fact patterns. Although court enforcement ultimately proved to be insufficient for dealing with the problem of law enforcement in securities matters, courts nevertheless played an important role in advancing legal standards to deal with stock fraud schemes and imposing civil and criminal liability. Moreover, the legislature closely observed case law and readily intervened whenever it saw reasons to fill gaps left by the courts or to correct decisions made by them.

By contrast, Russia or China did not have much of a commercial law at the outset of transition. China had dismantled its legal system in the late 1950s and virtually started from scratch after 1978 (Zheng 1988). Russia was left with

socialist law from the past and basic reform legislation developed during the period of perestroika (Black, Kraakman, and Hay 1996; Pistor 1997). The entire body not only of corporate and securities, but also of contract, tort, and white collar criminal law had to be developed anew. The pace of legal reform in transition economies has been remarkable. Most countries put the relevant laws on the books within a decade after the beginning of transition (Pistor, Raiser, and Gelfer 2000).

However, enacting law on the books is only the very first step in establishing an effective legal system. The incomplete law theory helps explain why this is the case. Because law is incomplete, its meaning and implication for a particular fact pattern cannot be easily derived from statutory law alone. Even when law is highly specific, new fact patterns raise new questions about how the law should be interpreted. Russian courts, for example, had to determine whether a legal provision that prohibits a director from transacting on behalf of the company he is representing with a company in which he holds a substantial stake, also applies when the director acquired the stake shortly after the transaction had been entered into. It is impossible to stipulate all the possible meanings and applications of the fiduciary duties a director or manager owes to the corporation. Any attempt to do so would leave key aspects unresolved. By using broad, ambiguous terms, lawmakers in essence invite law enforcers to give meaning to this provision when applying it to specific cases, or put differently, they allocate residual lawmaking powers to enforcement agents,

that is, courts and/or regulators. Conversely, attempts to clearly articulate actions that are considered violations of the law invite strategies to circumvent the law and require future lawmaking to avoid major gaps in the law from developing. Given the pace of financial market development, the propensity for gaps to develop is high, which results in deterrence failure.

If law is incomplete neither individuals nor law enforcers can stipulate whether a particular action will fall within the scope of a law and will therefore face sanctions. To ensure compliance even with incomplete law, legal systems could increase the level of punishment. However, this might result in excessive punishment of harmless and potentially beneficial actions. Thus, law fails to deter optimally. Moreover, we suggest that the larger a financial market, the more serious the deterrence failure problem.² The reason is that for any given punishment level, when market value increases the issuer's benefits from cheating also increases. To deter cheating the level of punishment would have to be increased. But for any given incompleteness level of law, this would also increase the expected punishment of harmless actions. To avoid excessive punishment of such actions, the deterrence level is restrained.

The combination of highly incomplete law, low levels of punishment relative to the level of incompleteness, and high market values may result in deterrence failure. The more incomplete the law, the greater the likelihood that deterrence occurs even when financial markets are still small. Given the level of incomplete law in transition economies, they are likely to suffer deterrence

failure at an earlier stage of financial market development than did countries with better-developed legal systems.

In order to address the deterrence failure problem it may be advisable to introduce regulators. Regulators can enforce law ex ante by enjoining actions that have the potential of causing harm; they can establish entry barriers and use them to screen companies prior to listing. The efficacy of these regulatory tools, however, depends crucially on the quality of company specific information.³ In transition economies reliable company specific information is difficult to obtain and standard practices, such as disclosure of financial information may be more misleading than reflecting the true worth of a company. Financial information was created by translating existing accounts that followed socialist bookkeeping principles with no relation to market prices into accepted market based accounts. Chinese balance sheets to this day have double entries: one for the value of company assets according to legal accounting principles, which may be legal, but do not present the intrinsic value of the firm and another with re-evaluation estimates, which may be closer to the actual market value, but remain guesswork in an environment where markets for many assets remain underdeveloped. Similarly, it has been pointed out that in transition economies financial accounts often do not reflect company practices, in part because of tax avoidance issues, in part because companies are struggling with how to record old debt or barter transactions (Bailey 1995). The information problem is

aggravated by the absence of reliable independent sources of information or experts.

In this environment, proactive law enforcement by regulators cannot be effective. Under a disclosure rule, a regulator would require an issuer to reveal a set of standardized information. It would then use this information to perform a “smell test” (Coffee 1999), that is, to determine whether the public issue can go forward, or whether additional information should be requested. Once the additional information is revealed, the regulator decides whether the company may or may not go forward with the issuance. If the information that is submitted is noisy or manipulated the smell test and the final decision will have a large margin of error. To put it differently, in an environment where information is unreliable, a regulator lacks the necessary ingredient (reliable information) for effective proactive enforcement. The result is regulatory failure. Given the severity of the information problem, regulatory failure is likely to occur at a relatively early stage in financial market development. The result may be either the failure of markets to take off, or the collapse of a market after it reached a critical threshold where the incentives to cheat outweigh the enforcement ability of existing institutions given the constraints of highly incomplete law and severe information problems.

Governing Financial Markets: The Experience of Russia and China

China and Russia embarked on policies designed to promote the development of financial markets in corporate securities in the early 1990s. There is evidence from China that already in the 1980s companies were searching for new ways to raise funds and many started to issue shares. Markets for shares sprung up spontaneously, but were later regulated out of existence (Zhu 2000). In Russia, commodity markets spearheaded the development of financial markets in the late 1980s, but it began in earnest only with the dissemination of privatization vouchers in 1991 and with the trading of corporate shares subsequent to privatization (Frye 1997).

Although we acknowledge that factors other than law enforcement may have an impact on financial market development, research in recent years has pointed out the importance of law as a determinant of financial market development (La Porta et al. 1997). We generate several predictions from our theoretical analysis for the ability of these two transition economies to build effective governance structures for financial markets:

- Given high levels of incomplete law in transition economies, a court regime will not be effective in deterring securities fraud. Courts will therefore play only a minor role in law enforcement at least during the initial phase of financial market development.

- Law enforcement by regulators is contingent on the quality of information regulators obtain from companies. Given the low quality of company information available from (former) state owned companies in transition economies and the lack of a well developed accounting and auditing profession, regulators will not be able to ensure effective law enforcement.
- In the absence of effective law enforcement, financial market development will suffer from deterrence as well as regulatory failure, unless countries find ways to overcome the incomplete and/or the information problem.

The Case of Russia

We begin by describing Russia's experience with establishing governing structures for financial markets. Russia's experience fits more squarely the familiar pattern of law enforcement by courts *cum* regulators. Russia attempted to jump start financial market development by launching a mass privatization program in 1992, which created a nation of shareholders. All Russian citizens were given vouchers, which they could invest either directly or through an intermediary in the company of their choice. Over 15,000 companies were organized as open joint stock companies the shares of which were freely tradable (Boycko, Shleifer, and Vishny 1995). It was hoped that the auction process would reveal company specific information, as voucher investors could chose among different companies. This proved to be unsuccessful, however,

because companies were not put on the auction block simultaneously. Moreover, investors from afar could obtain only very little information about companies. Although the government used a standard formula to describe the companies' underlying assets, number of employees and financial status, the information revealed little about the potential of the company to survive in a competitive market environment. Not surprisingly, most voucher investors invested locally, often in the firms that employed them. Financial intermediaries, such as voucher investment funds, also had little trust in the financial information they obtained from the companies and invested in bribing company officials for better information (Frydman, Pistor, and Rapaczynski 1996).

Russia completed the mass privatization program in 1994. At that time, the commercial court system, the arbitrazh courts, were already functioning. The courts have handled securities disputes on a regular basis: 1834 cases in 1997 and as many as 3483 in 1999, and 2403 in 2000. To be sure, these numbers include all disputes related to financial instruments and disputes involving corporate stock may only amount to a small fraction of these numbers. Nevertheless, the numbers do suggest that courts were functioning and issuing rulings on a fairly regular basis.

In November 1994, President Yeltsin established the Federal Commission for Securities Market Regulation (FCSM) by presidential decree. It took two more years for a comprehensive securities law to be adopted by the

Russian parliament. This new law vested the FCSM with the right to oversee financial markets. Also in 1996, Russia's first comprehensive corporate law was enacted. The corporate law was based on a draft written by leading American scholars in comparative corporate governance and draws heavily, though not exclusively, on US models (Black and Kraakman 1996). The two laws followed somewhat different strategies. The corporate law sought to strengthen shareholder rights, but avoided allocating strong lawmaking and law enforcement powers to courts. This was based on the assessment that Russian courts were slow, incompetent, and even corrupt (Black and Kraakman 1996). The drafters of the code attempted to circumvent courts by endowing shareholders with extensive self-enforcing rights, including extensive information and voting rights. This strategy was not successful, mostly because the so-called self-enforcing rights proved to be at best "self-help" rights, as shareholders were unable to enforce them against management. The Securities Law, by contrast, vested courts with the ultimate power to enforce the securities law. The newly created FCSM had the right to initiate enforcement procedures, but in order to impose fines or delist a company, it had to bring action in court. This strategy can be interpreted as a response to the legacy of powerful state agents who were feared to undermine rather than support market developments in the post socialist countries. Alternatively, it may reflect the ongoing power struggle between President Yeltsin who had established the FCSM by decree and staffed it with his followers on the one hand, and the Russian parliament

(State Duma), which was more skeptical about Yeltsin's economic policies, on the other. In any case, the failure to endow the new regulator with independent enforcement powers undermined its efficacy.

In response to continuing enforcement problems, the law enforcement powers of the FCSM were expanded by a presidential decree in 1996. Finally, an overhaul of the FCSM's powers occurred in 1999 with the adoption of the Investor Protection Law, which took effect at the beginning of 2000.⁴ The new law allows the FCSM to fine companies that fail to comply with the provisions of the Securities Law or the Investor Protection Law for an amount of up to 10,000 times the minimum wage without having to go through the courts. Fines may be imposed for violating registration requirements, among others, for failing to disclose relevant information and for disseminating misleading information. The FCSM may delegate enforcement authority to its branch offices in different parts of the country.

As a result of these reforms, Russia today has a legal framework in place that resembles in many aspects US style securities regulation. Prior to issuing shares to the public, companies need to register with the FCSM and disclose relevant company information. Failure to do so can be punished by a regulator that has the legal power to enjoin actions, to fine, and to initiate court enforcement procedures. In addition, the FCSM makes rules and implements regulations to adapt to a changing market environment. Information on enforcement activities also suggests that Russia has made some headway in

establishing a reasonable legal framework for financial market development. In the first year after the enactment of the Investor Protection Law, the FCSM conducted 1318 enforcement proceedings; in 2001 there were over 6000.⁵

Still, despite remarkable progress in developing a legal framework that resembles in large parts those in developed market economies, as of now this system has not contributed much to financial market development. Russia's financial market collapsed in August 1998 as a result of the government's default on its loans. In 2002 Russia had once again become a star performer among emerging markets. However, these results can largely be attributed to rising oil prices. Indeed, as of 1999, 73 percent of Russia's total market capitalization was made up of companies in the oil, gas, and mining sectors, followed by utilities and telecommunications companies (IFC 2000). Moreover, there have been only few initial public share offerings, suggesting that firms are not using equity markets for external funds, or conversely, that investors have little appetite in parting with their money given the uncertainties they faced in obtaining a return on their investment. Finally, the stocks traded on Russian exchanges move overwhelmingly together. Morck, Yeung, and Yu (2000) have observed that stocks in emerging markets tend to move together, whereas stocks of different firms in developed market economies move more independently from each other. They suggest that the reason for this is the lack of firm-specific information. Using the co-movement of stock as an indicator for firm-specific information they find that countries range from co-movement of .03 in

the United States to close to .6. In most cases, co-movement declined over time. In Russia, the level of co-movement was .28 in 1995, increased to .46 in 1998, and reached a level of .37 in 2000.⁶ This suggests that the legal reforms have not enhanced the level of firm-specific information available to investors. Even leaving aside the data point for 1998, which is affected by the collapse of the financial market in that year, the level of co-movement in 2000 was still higher than in 1995.

The Case of China

The Chinese case differs in several important ways from the Russian case. In China, the privatization of state owned companies did not precede market development, but may now come at the end of a ten year process, which saw state owned enterprises being listed on stock exchanges and parts of their shares being traded by individual investors. Roughly 60–70 percent of company shares remained in state hands, with only 30–40 percent issued to private investors. In November 2002, the State Council issued regulations that allow foreign investors to acquire stakes held by various state agencies in listed companies. Rather than developing institutions from scratch, China used existing bureaucracies as initial regulators and monitors of financial markets. Only gradually were these institutions replaced with a newly established securities regulator. Although China has also created a remarkably developed legal infrastructure for financial markets over the past ten years, the markets have

been governed for most of this period by mechanisms, which are not strictly law enforcement mechanisms, and which we therefore call “beyond law enforcement.” Most importantly, China used a decentralized selection procedure for identifying companies that were to be listed and used a quota system to incentivize local agents to invest in the selection process.

Regarding the development of the legal infrastructure for financial markets, we observe a proliferation of agencies and rules intercepted by several attempts to streamline and centralize the regulatory infrastructure. The People’s Bank of China (PBC) was designated as the key agent for financial market supervision in 1986 and retained this function officially until 1992. There is evidence that to this day, the PBC and its local branches take part in monitoring markets and ensuring law enforcement.⁷ In addition, the office of the state auditor has continued to monitor state owned enterprises, including those whose shares are traded on the exchange. At the regional level, the two major stock exchanges that emerged in 1990, Shanghai and Shenzhen, adopted listing rules and regulations. Over time, their powers were taken over by regulators at the central level. In fact, under the 1999 Securities Law, the stock exchanges seem to serve a function more akin to an agent of China’s Securities Regulatory Commission (CSRC), which has emerged as the major financial market regulator.

In 1992, the State Council established the State Council Securities Commission (SCSC). The SCSC became an important body for developing

policies for financial markets, but did not become a full-blown regulator. This task was taken up by a second body created by the State Council in 1993, the CSRC. In 1998, the two agencies were merged into a single agency, the CSRC. The chairman of the CSRC is ex officio member of the State Council. Thus, there is no attempt to create an independent regulatory body. The CSRC was given some lawmaking power, and it issued listing requirements as early as 1993. However, until the adoption of the Securities Law in 1999 and the strengthening of the CSRC through its merger with the SCSC, the State Council issued most of the path setting rules and policies that governed financial markets, including the 1993 regulations on the management of stock exchanges and securities fraud, and the 1995 adoption of B-share regulations.

In 1994, China adopted the first company law at the national level. The law establishes detailed merit requirements for companies wishing to issue shares and to be listed at a stock exchange. A company must, among others, show that it has operated profitably for at least three years; that it has issued shares to the public; that at least 25 percent of these are in the hands of the general public; and that its registered capital exceeds RMB 400 million. In addition, the company needs approval from the relevant securities authority and the stock exchange, must use one of the specially licensed investment banks as underwriters, and can choose only from among especially licensed law firms to help them prepare the relevant work for share issuance and listing. In 1999, China's first comprehensive securities law was enacted. It does not refer

directly to the CSRC, but to the State Council's "authorized unit", which is in charge of financial market supervision, and which is generally interpreted to be the CSRC. The law vests this unit with primary functions of market regulation, but also allows it to delegate decisions, including admission to trading, to the exchanges. Under the law, the CSRC may issue implementing regulations and has made extensive use of this authority. In February 2000, the CSRC issued new regulations for stock offerings; in March it decreed that for new companies share issuance would be spread over a 24 month period; in the same month it established new guidelines for assessing the creditworthiness of underwriters.

Law enforcement activities by the institutions listed above have been rare when compared with Russia and in light of China's much greater financial market development. Administrative sanctions enforced by the CSRC may take several forms, ranging from informal rebukes to a formal ruling. Data are available only for the latter. Between 1997 and the end of 2001, the CSRS published 205 formal rulings, including 15 for market manipulation, 2 for the dissemination of wrongful information, 9 for insider trading, 39 for violation of disclosure rules, 3 for listing on stock exchanges outside the People's Republic of China without relevant approval, as well as for a number of violations related to the management of client accounts and the use of private accounts for speculating in shares (Pissler 2003). During this period there were more than 900 companies listed on Chinese stock exchanges on average, more than four times as many as in Russia.

Until recently, law suits in securities matters have been virtually absent in China. Neither corporate nor the securities law gives investors explicit standing in court. Attempts by investors and their lawyers to bring class action suits were frustrated by a Supreme Court Ruling in September 2001.⁸ The opinion stated that courts did not have the competence to handle these cases at the time and that they would therefore not accept such cases. In January 2002, this ruling was modified by stating that in cases of companies issuing misleading information in a prospectus, a case may be heard by a court, provided that the CSRC has investigated the matter and effectively penalized the company.⁹ Finally, in January 2003, the Supreme Court issued a new guiding opinion, in which it lays down in great detail the conditions for investor suits.¹⁰ This decision has already triggered a new wave of litigation. However, how courts will handle these cases, and whether court enforcement will ultimately enhance the effectiveness of law enforcement remains to be seen. For the past ten years of China's remarkable financial market development, these formal enforcement mechanisms have not played an important role.

Looking only at the familiar framework for financial market regulation outlined above would therefore miss much of governance structure for the early period of financial market development in China. For a deeper understanding, one must take a look at measures beyond law enforcement. The most important governance structure for financial markets beyond law enforcement used in China in our view is the decentralized process of selecting companies that could

issue shares to the public combined with a quota system that created competition among the regions.¹¹ We do not claim that the system was designed for the purposes we describe, but we suggest that it has fulfilled important functions where standard law enforcement mechanisms failed as a result of highly incomplete law and lack of reliable standardized information. Under the quota system, Beijing allocated to different provinces and/or ministries a stated amount in renminbi, the country's currency, that companies owned by these agents could use for issuing shares to the public. There is little data available on how this process worked in practice; we rely on a detailed analysis of the early development of the Chinese capital market (Fang 1995) as well as on interviews with knowledgeable insiders. The total amount of capital made available to companies was apparently derived in consultation with the PBC. The bank sought to reduce lending to state-owned enterprises, and the amount by which it cut back its lending was replaced by options to raise equity funds. The distribution of these options--expressed in the value of renminbi allotted to different provinces and ministries--was the result of an intense internal bargaining process. Factors that were beneficial for a region were its size and economic importance, in particular past economic success, as well as the performance of companies that were already traded on the market.

Once the amount was set, it was up to the provincial government, in collaboration with the company's owners, including ministries, local branches of the PBC, and other state agents with a stake in the company, to identify the

company for listing and nominate it. In this process, companies were frequently “repackaged.” Valuable assets were separated by establishing a subsidiary and this subsidiary rather than the parent company would be nominated for listing (Oi and Walder 1999). Sometimes companies were merged, or assets from different companies were combined in a jointly owned entity that would then be put forward for listing. After the company was nominated by the province, the final decision was left to the CSRC. The CSRC frequently used delaying strategies rather than outright refusal in restricting access to the market. In taking such measures the CSRC was influenced not only by characteristics of a particular company and/or province but by concerns about the absorption capacity of the market.

The most important aspect of the quota system in our view is that it triggered a process of decentralized information gathering by knowledgeable agents of the system at a time when it was impossible to standardize the information that might be relevant for investors, and when intermediaries were not available to verify or certify this information. The selection process helped to unearth information about companies. It thereby improved the information basis for those who had to assess the future potential of companies and to give them access to the market. Because the system involved the participation of various state agents, it ensured that it was sufficiently contested to reveal critical information. The relevant company information for making such decisions were not primarily financial reports about past performances, as past

performance was at best marginally based on market criteria. Instead, it involved a qualitative assessment of the company's assets and management potential--that is, information that cannot be easily standardized.

This positive interpretation of the quota system is contingent on the notion that provinces and ministries involved in the process of selecting companies had incentives to select better rather than worse companies. There is some evidence that the system worked to create such incentives. Substituting state credits with equity funds as such was not a guarantee that provinces and ministries would in fact invest in selecting viable companies for listing on the market. Indeed, provinces may have hoped to diversify the burden of loss making companies, and thus may have preferred to bring their lemons to the market (Akerlof and Romer 1993). However, the fact that identifiable state agencies were involved in the process of selecting companies also implied that they could be held responsible for bad decisions. On several occasions, regional governments were pressured to "take care of their children" and bail out loss-making firms. Moreover, regional governors have increasingly come to see the performance of their regions as a stepping stone in their own political career. This prospect could be seriously harmed, if one of "their" companies went under. Finally, failure by companies from a particular region or ministry could deprive that region or ministry of future allocations of equity quotas. In sum, the quota system instilled some measure of competition into the system, which created incentives for investing in the selection process of companies. We do

not suggest that the system ensured that always the best companies were selected, but propose that it created disincentives for bringing the worst companies to the market and thereby considerably reduced the chances of creating a market for lemons.

In 2000, China announced that it would move away from the quota system and that when determining to list a company, the CSRC would rely increasingly on listing requirements established in the company law, its own listing requirements, and information available in financial data that were certified by especially licensed intermediaries. However, because there were still many companies in line, which have been approved but not been able to issue shares, the shadow of the quota system remained for some time after it had been officially abandoned.

The decentralized process of selecting companies without pre-established criteria and transparent sources of information is obviously vulnerable to corruption. The negotiations among various state agencies are nonpublic and as such nontransparent, making monitoring difficult, if not impossible, and thereby reducing accountability. Apart from the minimum merit requirements established in the 1994 company law, which were effectively overruled by the quota system, clear criteria for selecting companies were absent, creating the appearance that the selection process was a rather murky undertaking. In fact, news reports suggest that the process frequently disfavored companies with less political influence but perhaps higher merits.

Still, the sanctions regions or ministries faced for bringing lemons to the market that would soon fail were sufficiently strong to avoid strategies that rested entirely on political bargains and not on economic merits. Moreover, each nomination of a company was the result of a multiparty bargain, which implied that the various parties kept an eye on how many private benefits their counterparts sought to extract from the bargain.

Russia and China Compared

On any standard measure of stock market performance, including the number of listed companies, market capitalization, and market turnover as a measure of liquidity (Levine and Zervos 1998), China outperforms Russia. As of January 2002, there were over 1131 listed companies in China--up from 10 in 1990, and compared to 245 in Russia. Market capitalization as a percentage of GDP was at US\$ 524 billion, whereas in Russia it stood at US\$ 62.9 billion (Gao 2002). Market capitalization data have to be corrected for the stakes closely held by the state, which amounts to about 60 percent of total company shares. Note, however, that a similar correction would have to be made for Russian firms, as large blockholders, including state agencies or entities controlled by the state, control on average over 50 percent of companies that are listed on the market. Finally, only few companies have attempted an initial public offering in Russia, or pursued a secondary offering after they were listed. Distortions in both markets may cast doubt on the extent to which these comparisons are

meaningful. However, even if we allow for substantial corrections, it is undeniable that in light of China's much lower level of GDP--an indicator which has proved to be a powerful predictor of stock market development (Claessens, Klingebiel, and Schmukler 2003)--the country's strong financial market performance is quite remarkable.

The most striking feature of China's financial market development in light of the governance system described above is that the indicator for co-movements of stock have decreased significantly from .31 in 1993 to .22 in 2001 (Morck et al. 2000). Although this is still far above levels found in developed market economies, it is substantially lower than in Russia. This trend suggests that in China more firm-specific information is available to investors than in Russia.

Beyond Law Enforcement

We argue that China's superior performance in financial market development had taken place not despite of, but because of, governance mechanisms beyond law enforcement. In this section, we tie the empirical analysis into our theoretical framework and seek to explain why what may appear to be interventionist measures, including quotas and merit rules, may be beneficial in an environment characterized by highly incomplete law and severe information problems. We use a stylized analysis of quotas, merit rules, and combination of quotas and merit rules to make our point.

In an environment characterized by information problems, too many companies with too little information may be entering the market at the same time. Establishing quotas to control market entry may help to contain that problem. An example of the use of quotas to control a new market is the creation of only 15 investment funds in the Polish privatization program, as compared to the over 400 funds that mushroomed in Russia and the Czech Republic in a market-driven process (Coffee 1999), which made it virtually impossible for regulators to enforce even the little regulation they had.

Simple entry barriers in the form of quotas, however, do not discriminate between viable firms and lemons. This may be achieved by adding merit requirements, that is, substantive conditions a company must meet to be admitted to the market. Merit rules are based on the presumption that the conditions stipulated are indeed indicative of a company's worth. They have been criticized because lawmakers or regulators may not have sufficient information to identify such indicators. This critique, however, presumes that investors have other sources of information. If they do not, then merit requirements, as crude as they are, may signal that companies are meeting some very basic conditions (such as profit making for the last several years) and thereby enhance investors' confidence.

The Chinese quota system goes substantially beyond a combined quota/merit rule. As discussed above, China did not simply impose a nationwide quota, but allocated subquotas to different regions. Quotas could

remain unused, be reduced or reallocated to different regions. In order to ensure that a province would have future access to stock markets as a potential source of funds for its companies, it had to be reasonably sure that these companies would perform. This required additional information gathering from company insiders. The process has been less transparent than a pure quota/merit system might have been. However, it fostered the collection of insider information that would have escaped simple merit rules.

The success of this system in China during the early phases of stock market development does not imply that it would be superior to a disclosure system in the long term. Nor does it mean that it should be taken as a simple recipe for developing financial markets elsewhere. The quality of the information in terms of the investment prospects a particular company offered depended heavily on effective checks and balances to guard against misuse. We suggest that competition among regions and ministries and the possible bailout sanction have gone some way in ensuring that relevant state agents invested in the selection of more rather than less viable firms. However, the system has not been flawless, nor is it necessarily sustainable. There is evidence that once companies have made it to the market, the assets they represent are substituted for different assets in takeover transactions that resemble the acquisition of moribund chartered corporations in England at the time of the South Sea Bubble (Davies 1997). This process obviously undermines an elaborate information system that rests heavily on the identity of the corporation that is

screened prior to listing with the one that is ultimately traded. Other parts of the system create moral hazard problems. Most importantly, the fact that regions were forced to bail out their companies undermined the incentives for managers to perform at a level that would avoid failure, and created disincentives for investors to invest in assets that would generate positive returns. In fact, available evidence suggests that when companies come close to insolvency, their share prices increase. This suggests that the insurance function state ownership provides works pretty well, but also raises the specter of moral hazard problems in hardening the budget constraint for state owned enterprises.

Yet, the system is not beyond reform. As mentioned, the quota system has already been phased out. Moreover, after several flawed attempts by the state to sell additional shares to the market, which were met by heavy selling and price declines, the latest attempt to reduce state ownership has taken the form of selling blocks to foreign investors. Whether China will successfully manage the transition from a financial market that depends heavily on state agents in selecting and insuring companies to one where market forces will have greater force remains yet to be seen. The comparison with the Russian case, however, suggests that there is no short cut to complex markets and that law enforcement mechanisms that have become standard in developed market economies may be dysfunctional when the task is to create markets and to govern this initial phase of market creation.

Conclusion and Policy Recommendations

In this chapter, we have analyzed the development of governance structures for financial markets in transition economies, using China and Russia as examples. We argued that even in developed market economies with well developed legal systems, law enforcement in a sector that is as rapidly changing as financial markets are, is not an easy task. Socioeconomic and technological change renders laws that are designed to deter harmful actions highly incomplete. In order to ensure effective law enforcement, the legal system must allocate the right to adapt, interpret, and enforce the law to agents that are best capable of handling this task. We propose that when law is highly incomplete and harmful actions may cause substantial damages, allocating LMLEP to proactive law enforcers, such as regulators, may be superior to leaving it with courts that enforce the law only reactively. This result is based on the assumption that regulators have access to reliable information about companies, which means that accounting information is meaningful and can be verified by market watchdog institutions as well as law enforcement agents.

In transition economies law is even more incomplete than in developed market economies, as most laws have only recently been enacted, and lawmaking and law enforcement agencies lack the experience to apply and interpret this law to a variety of newly emerging cases. Moreover, market watchdog institutions are lacking and reliable information is scarce. We suggest that under those conditions, imitating practices of developed economies, such as

simply shifting law enforcement from courts to regulators, is not sufficient. In the absence of reliable information a regulatory regime may fail to enhance social welfare, and may instead result in regulatory failure, triggering a collapse of financial markets. We conclude that standard mechanisms of law enforcement may not work effectively during the early period of market development.

The diagnosis of these problems and the acknowledgement of the likely failure of standard recipes do not immediately translate into positive policy recommendations. What should be clear from our analysis, however, is that transition economies cannot simply rely on either court or regulatory law enforcement. The incentives to cheat are simply too great as highly incomplete law and severe information problems render law enforcement by courts and regulators ineffective. In order to avoid deterrence and regulatory failure, transition economies should move beyond law enforcement. This implies greater involvement of state actors in selecting companies and setting conditions for companies to access the market, which raises concerns about possible misuse of these powers. Any transfer of additional power to government agents should therefore be accompanied by governance mechanisms that minimize the misuse of power and that create incentives for state agents to make decisions that maximize social welfare, not their own personal interests.

We suggest that China has devised a system that accommodates most of these concerns. The decentralized selection process of companies, which relied heavily on state agents with insider information has revealed more critical company information than would otherwise be available. At the same time, the quota system and the likely repercussions state agents faced for making bad decisions created incentives for these agents to invest in the selection process and avoid a race to the bottom. A major drawback of the system is that it relied on continuous state ownership. Only this gave state agents access to company information and ensured that they aligned their interests with those of the companies. Yet, state ownership has created its own moral hazard problems. The ultimate success or failure of the Chinese strategy will therefore depend on whether a transition from dominant state ownership to dominant private ownership can be engineered without major disruptions in financial market development. Yet, the official cancellation of the quota system, the continuous development of merit and disclosure rules, and more recently, the enactment of legislation that allows foreigners to buy shares in companies give hope that the system is already reforming itself.

Whether Russia would have been able to follow a similar strategy as China is questionable. Certainly after most major companies had been privatized--a measure that was designed to cut the umbilical cord between state agents and enterprises--the China model was no longer an option. Yet, Russia could have used rigid merit requirements to select companies for listing.

Instead, Russia based its regulatory system primarily on disclosure. Even the stock exchanges shied away from merit-based listing standards as they feared that companies would move to different exchanges if they introduced entry requirements in the form of merit rules. Given the lack of reliable company information, a disclosure system could not work effectively in Russia. The FCSM has finally realized this and introduced listing requirements, which are applicable to all exchanges in 2002.

A more general lesson of our analysis is that whatever may have emerged as “best practice” in developed market economies, may be dysfunctional in an environment with very different characteristics. Even if the medium to long-term goal is to converge on such practice, at the outset of reforms other means may have to be pursued to initiate market development. This is likely to imply greater involvement by state agents, which in turn requires governance institutions that minimize the abuse of such power. The Chinese example suggests that a combination of collective decision making and competition between different decision-making units may control these costs to some extent. By contrast, the Western model of powerful state agents with strong decision-making powers subject only to judicial review may be difficult to implement when courts are not very effective and a culture of law abidance has not been developed.

A further policy implication of this analysis is that the success of economic reforms depends on the ability of systems to respond effectively to

new challenges that arise and to change and adapt the system over time. In China, this process of experimentation, trial and error, has been the hallmark of economic reforms over the past thirty years. In this process, Chinese state agents have learnt the art of adaptation and responsiveness to change. In Russia, by contrast, the attempt to shift the economy and economic institutions rapidly to a market based economy along Western models, has preempted a process of gradual adaptation and change and cut short the learning process that goes along with it. The result has been a system that is dysfunctional because initial conditions in Russia were incompatible with the model chosen for financial market development, and because the process of institution building neglected the need for future self-correction of the system.

References

- Akerlof, George A. 1970. The Market for “Lemons”: Quality Uncertainty and the Market Mechanism. *Quarterly Journal of Economics* 84: 488–500.
- Akerlof, George A. and Paul M. Romer. 1993. *Looting: The Economic Underworld of Bankruptcy for Profit*. Brookings Papers on Economic Activity No. 2, pp. 1–73.
- Bailey, Michael. 1995. Accounting in Transition in the Transitional Economy. *The European Accounting Review* 4 :595–623.
- Becker, Gary S. 1968. Crime and Punishment: An Economic Approach. *Journal of Political Economy* 76: 169–217.
- Black, Bernard and Reinier Kraakman. 1996. A Self-Enforcing Model of Corporate Law. *Harvard Law Review* 109: 1911–82.
- Black, Bernard, Reinier Kraakman, and Jonathan Hay. 1996. Corporate Law from Scratch. In R. Frydman, C. W. Gray, and A. Rapaczynski (eds), *Corporate Governance in Eastern Europe and Russia*, pp. 245–302. Budapest, London, New York: Central European University Press.
- Boycko, Maxim, Andrei Shleifer, and Robert Vishny. 1995. *Privatizing Russia*. Cambridge MA: MIT Press.
- Claessens, Stijn, Daniela Klingebiel, and Sergio L. Schmukler. 2003. The Future of Stock Exchanges: Determinants and Prospects. *European Business Organization Law Review* 3: 403–38.

- Coffee, Jack C. Jr. 1999. Privatization and Corporate Governance: The Lessons from Securities Market Failure. *Journal of Corporation Law* 25: 1–39.
- Davies, Paul L. 1997. *Gower's Principles of Modern Company Law*. London: Sweet Maxwell.
- Fang, Liufang. 1995. China's Corporatization Experiment. *Duke Journal of Comparative and International Law* 5: 149–269.
- Frydman, Roman, Katharina Pistor, and Andrzej Rapaczynski. 1996. Investing in Insider-Dominated Firms: A Study of Russian Voucher Privatization Funds. In R. Frydman, C. W. Gray, and A. Rapaczynski (eds), *Corporate Governance in Eastern Europe and Russia*, pp. 182–241. Budapest, London, New York: Central European University Press.
- Frye, Timothy. 1997. Contracting in the Shadow of the State: Private Arbitration Commissions in Russia. In J. D. Sachs and K. Pistor (eds), *The Rule of Law and Economic Reform in Russia*, pp. 123–38. Boulder CO: Westview Press.
- Gao, Sheldon. 2002. *China Stock Market in a Global Perspective*. Dow Jones Indexes.
- IFC. 2000. *Emerging Stock Markets Factbook*. Washington DC: IFC.
- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W. Vishny. 1997. Legal Determinants of External Finance. *Journal of Finance* 52: 1131–50.

- Levine, Ross and Sara Zervos. 1998. Stock Markets, Banks, and Economic Growth. *American Economic Review* 88: 537–58.
- McKinnon, Ronald I. 1973. *Money and Capital in Economic Development*. Washington DC: Brookings Institution.
- Morck, Randall, Bernard Yeung, and Wayne Yu. 2000. The Information Content of Stock Markets: Why Do Emerging Markets Have Synchronous Stock Price Movements? *Journal of Financial Economics* 59: 215–60..
- Oi, Jean C. and Andrew G. Walder (eds). 1999. *Property Rights and Economic Reform in China*. Stanford University Press.
- Pissler, Knut Benjamin. 2003. *Chinesisches Kapitalmarktrecht*. PhD thesis, University of Hamburg.
- Pistor, Katharina. 1997. Company Law and Corporate Governance in Russia. In J. D. Sachs and K. Pistor (eds), *The Rule of Law and Economic Reform in Russia*, pp. 165–87. Boulder CO: Westview Press.
- Pistor, Katharina, Martin Raiser, and Stanislav Gelfer. 2000. Law and Finance in Transition Economies. *The Economics of Transition* 8:325–68.
- Pistor, Katharina and Chenggang Xu. In press. Incomplete Law. *New York University Journal of International Law and Politics*
- Polinsky, Mitchell and Steven Shavell. 2000. The Economic Theory of Public Enforcement of Law. *Journal of Economic Literature* 38: 45–76.

Stigler, George J. 1970. The Optimal Enforcement of Laws. *Journal of Political Economy* 78: 526–36.

Xu, Chenggang and Katharina Pistor. 2003. *Law Enforcement under Incomplete Law*. Columbia Law and Economics Working Paper Series 222. Available at ssrn.com (#396141).

Zheng, Henry R. 1988. *China's Civil and Commercial Law*. Singapore, UK, USA, Canada, Australia, New Zealand: Butterworths.

Zhu, Sanzhu. 2000. *Securities Regulation in China*. Ardsley, New York: Transnational Publishers Inc.

Notes

* The authors would like to thank Han Li, Daniel Magida, and Katherine Wilhelm for excellent research assistance. Financial support from the Milton Handler Faculty Research Fellow Fund is gratefully acknowledged by Katharina Pistor.

¹ In Xu and Pistor (2003) we develop a formal game theoretical model with four players: a lawmaker, a law enforcer (either a court or regulator), a share issuer, and an investor. The game has two periods and models the impact of lawmaking and law enforcement by courts or regulators on the propensity of share issuers to take actions that may result in damages to investors. There is information asymmetry between the share issuer and the other players. The share issuer has incentives to cheat, which may result in losses suffered by the investor. The law is designed to punish cheating. We show that when law is complete at equilibrium law enforcement by courts achieves the first best, that is, law will effectively deter. This is consistent with the model developed by Becker (1968). However, when law is incomplete, at equilibrium, deterrence failure occurs. The comparative static of the model shows that the more incomplete the law, the more serious the deterrence failure.

² In our formal model (Xu and Pistor 2003), we demonstrate the trade-off between courts and regulators using simulation analysis to show that when the market has reached a certain threshold, the incentives of the investor to cheat are sufficiently large to result in deterrence failure. The higher the level of incompleteness of the law, the earlier this threshold is reached, and the earlier a market crash occurs as a result of deterrence failure.

³ In our formal model, a regulator may enjoin an action temporarily and request additional information before making a final decision as to whether the issuing of shares may go forward or not. The information obtained upon request is critical for making the right decision. In absence of reliable information, a regulator may either enjoin potentially beneficial actions or fail to enjoin those that are likely to cause harm. For details see Xu and Pistor 2003.

⁴ Law No. 46 on the Protection of Investors Rights of March 1999.

⁵ Information published in various issues of the official gazette of the Russian Supreme Arbitrazh Court.

⁶ These data have been kindly made available by Bernard Yeung.

⁷ In fact, according to the Law of the People's Republic of China on the People's Bank of China passed on March 18, 1995, one of the functions of the bank is the supervision of financial markets. On several occasions, the PBC has participated in the promulgation of sanctions by the CSRC against violators of financial market regulation.

⁸ People's Supreme Court Notice on the Temporary Suspension on the Hearing of Securities Related Civil Compensation Cases of September 21, 2001.

⁹ Decisions of China's Supreme Court of January 15, 2002.

¹⁰ Decision of January 10, 2003.

¹¹ Other means, including the retention of large blocks of shares by the state are more problematic for reasons further explained below.