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**Shareholder protection and stock market development**

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# Contents

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My interests in theories of law and finance started from 2008 when I was still an undergraduate at the Business School of China University of Political Science and Law (CUPL), while this thesis represents a beginning for my researches in this field and summarizes systemically my knowledge accumulated during these recent years, especially those beautiful time at the Law School of University of Bologna.

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# Abstract

The dissertation, *Shareholder protection and stock market development*, contains five parts: An introduction, three major chapters, and a short conclusion. The First Chapter, *Law matters?: A Bayesian analysis of the empirical law and finance studies*, starts from a survey and discussion of the studies on corporate law and financial development literature. For over a decade's study, the literature identifies legal institutions including legal origins, law on the book, legal enforcement strategies, property rights protection, in addition to extra-legal determinants, including colonization strategies, political factors, and culture, to be correlated with the stock market development.

Though the field is proliferative, the commonly used methods in these cross-sectional analyses are biased as legal origins are no longer valid instruments (La Porta *et al*, 2008), which makes the model uncertainty problem, *i.e.* which controls should be included in the empirical model specification, a salient problem. As a result, the First Chapter tries to answer the research question whether legal institutions are robust predictors of the financial development. If they are not, which of the variables that theoretically matter are empirically robust determinants? The Bayesian Model Averaging algorithm is applied to test the robustness of empirical results in Djankov *et al.* (2008). The analysis finds that their constructed legal index is not robustly correlated with most of the various stock market outcome variables. In addition, the variable selection algorithm, stepwise backward elimination, is applied to check the robustness of the Bayesian analysis, which confirms its results.

The second Chapter, *Minority shareholder protection, underpricing, and the decision to issue external equity*, assumes that stock market outcomes are heterogeneous, and focuses on the effects of minority shareholders protection in corporate governance regime on entrepreneurs' *ex ante* incentives to undertake IPO. Most of the current

literature emphasizes the beneficial part of minority shareholder protection on valuation, while overlooks its private costs on entrepreneur's control. The private costs of maintaining control are modeled by the magnitude of underprcing of asset in place, which attracts oversubscription of shares to form dispersed ownership structure (Brennan and Franks, 1997). As a result, the entrepreneur tradeoffs the costs of monitoring with the benefits of cheap sources of finance when minority shareholder protection improves. The net effects of minority shareholder protection on IPO incentives shall depend on which effects dominate.

To test the predictions of the model, this Chapter employs the panel data sets of shareholder protection developed by the Center for Business Research at the Cambridge University and the Law School at the University of Oxford. Furthermore, the GMM-sys estimator (Arellano and Bond, 1991; Roodman, 2009) is employed to control for the country-specific fixed effects and the endogeneity of the shareholder protection index, with the lagged observations of interested variables as the instruments. The empirical part finds that the number of listed firms is negatively correlated with the shareholder protection level, indicating that the burden of additional monitoring may discourage the entrepreneur from taking the firm public.

The third Chapter, *The over-empowered controlling shareholder and the stagnant Chinese stock market: The mismatched means and ends of corporate governance*, is legal-oriented and applies the law and finance theories to the current corporate law and corporate governance reform in China. The Chinese stock market is dominated by listed firms with controlling shareholders, which is due to the transformation from a planned economy to socialist market economy. The large state-owned enterprises (SOEs) are partially privatized through share issuing privatization (Dewenter and Malatesta, 1997). As a result, around 22% (254/1170) of the listed firms are ultimately owned by the State, 65% (758/1170) by marketized institutions controlled by the State, and 14% (158/1170) by private parties in the year 2002 (Delios *et al*., 2006). In addition, the corporate law in China regards shareholder control as the means to the

ends of pursuing the interests of stockholders. The current reform follows those carried out in both United States (U.S.) and United Kingdom (U.K.), which takes the perspective of principal-agent theory and argues to increase the power of minority shareholders, which overlooks the hazards to entrench controlling shareholders and minority shareholder control.

The Chapter combines two theories of the firm, *i.e.*, the team production theory (Alchian and Demsetz, 1972; Blair and Stout, 1999) and the property rights theory (Hart and Moore, 1990), to solve the problems of corporate governance in China. The Chinese corporate law and governance system features with ends of shareholder wealth maximization and means of shareholder control. Though shareholder wealth maximization is still an influential criteria, it imposes great costs on listed firms. A new concept, enlightened shareholder value, which has already been written into the *Company Act* in U.K., should be considered as the alternative objectives for Chinese listed firms. It regards the long term valuation of the firm as its objectives and argues that to achieve such ends, the interests of corporate constituencies should be taken into consideration.

Given the ownership structure of the Chinese listed firms, the shareholder control as mandated by corporate law proves to be an inefficient arrangement, which entrenches the controlling shareholders and makes it easy for them to exploit the interests of minority shareholders and other constituencies. Though the legislature and regulators in China tries to increase the independence of listed firms through establishing the modern independent director system, it proves to be futile as the independent directors are dependent on controlling shareholders for reelection and lack appropriate incentives to guard interests of minority shareholders. The problem lies in overweight of accountability of agent director to shareholder principle, which overlooks the feature of team production arguing for director authority. To fix such problem, a move from the mandatory division of power between shareholder meeting and board meeting to the default regime, is proposed. Market competition will drive listed firms

to opt-out inefficient requirements and opt-into more efficient internal governance system.

# 1 Introduction

The last decade sees the rise of law and finance scholarship, with both theoretical and empirical studies on the effects of corporate law and governance (CLG) on financial market development and firm-level attributes of public corporations, which is defined by Denis and McConnell (2003) as the second generation of researches on corporate governance.[1] Such enthusiasm for CLG is enhanced after the breakout of a series corporate scandals during the earlier 20th century, when companies with high reputation, such as Enron and WorldCom in U.S., falls.[2]

The earlier researches focus on the difference between the Anglo-Saxons CLG model with that of Continental-Europe, while recent ones recognize the diversity of CLG model. For example, even within the Anglo-Saxions governance model, the American rule-based model is in sharp contrast with the British principles-based one. Most of the research on corporate governance uses the agency theory, first applied to the modern corporations by Jensen and Meckling (1976), to investigate the separation of ownership and control due to dispersed ownership structure that documented by Berle and Means (1932). As management

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[1] In an influential survey, Shleifer and Vishny (1997) define the corporate governance as "the ways in which the suppliers of finance to corporations assure themselves of getting a return on their investment." A relevant and broader concept is "governance", the analysis of which earns Oliver Williamson the Noble Price for economics. Williamson (2005: 1) gives a definition of the economics of governance, which is "an effort to implement the 'study of good order and workable arrangements,' where good order includes both spontaneous order in the market, which is a venerated tradition in economics … and intentional order, of a 'conscious, deliberate, purposeful' kind." The workable arrangements means "feasible modes of organization, all of which are flawed in comparison with a hypothetical ideal … The object is to work out the efficiency logic for managing transactions by alternative modes of governance-principally spot markets, various long-term contracts (hybrids), and hierarchies." Similarly, Dixit (2009: 5) define the economic governance as "the structure and functioning of the legal and social institutions that support economic activity and economic transactions by protecting property rights, enforcing contracts, and taking collective action to provide physical and organizational infrastructure."

[2] The discussion of corporate governance is usually entangled with that of corporate law, as Hopt (2011: 10) names it as "Corporate Governance in the Shadow of the Law".

has information advantage about public corporations and contracts are incomplete[3], there are huge agency costs between investors and management. Self-interested management tends to maximize their own wealth in the detriment of shareholders' interests.

Kraakman *et al.* (2011) summarize three types of agency problem within public corporations: The agency problems between management and shareholders in those firms with dispersed ownership structure, between controlling shareholders and minority shareholders in those firms with dominant shareholders, and between shareholders and other corporate constituencies, such as creditors in the vicinity of insolvency. This dissertation focuses on the first two types of agency problem. Governance strategies come up aiming to properly constrain the agency costs within the public corporation. For example, Shleifer and Vishny (1997) propose that in countries with poor investor protection, shareholders accumulate concentrated ownership as a complementary governance mechanism to protect their own interests.

To test the hypothesis that institutions shape the economic outcomes, several indices are invented as the proxy for cross-country CLG quality. The "Anti-director rights index"[4] (La Porta, Lopez-De-Silanes, Shleifer, and Vishny, 1998, henceforth LLSV) measuring the protection of shareholder against

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[3] According to Tirole (1999), the incomplete contracts are due to transactional costs, which comprise three ingredients: Unforeseen contingencies, parties cannot define *ex ante* the contingencies that may occur or actions that may be feasible later on; cost of writing contracts, costs relating to describe all contingencies in a contract; cost of enforcing contracts, costs of courts to understand the terms of the contract and verify the contingencies and actions in order to enforce the contract.

[4] The index is an average of six sub-indices: "Proxy by mail allowed", "Shares not blocked before the meeting", "Cumulative voting or proportional representation", "Oppressed minorities mechanism", and "preemptive rights", and "Percentage of share capital to call an extraordinary shareholders' meeting". Spamann (2010) argues that the empirical correlation identified by LLSV (1998) is not trustworthy. After the coding errors are corrected, there is no correlation between corrected "Anti-director rights index" and ownership concentration.

exploitation of management and "Anti-self-dealing index"[5] (Djankov, La Porta, Lopez-De-Silanes, and Shleifer, 2008, henceforth DLLS) measuring the protection of minority shareholder against exploitation of controlling shareholder[6], are the two most popular ones. A series of studies follow the law and finance spirit and employ these indices and its variants to test the relationship between legal institutions and financial outcomes. The documented cross-country evidence shows that better shareholder protection is associated with higher percentage of long-term finance (Demirgüç-Kunt and Maksimovic, 1998), higher proportion of external finance and more dispersed ownership structure (LLSV, 1997, 1998), higher valuation of firm (LLSV, 2002), larger market capitalization and number of listed firms (Pagano and Volpin, 2006; DLLS, 2008), and greater market liquidity (Cumming *et al.*, 2011), and more efficient resource allocation (Mclean *et al.* 2012).

However, the empirical strategies employed to test these "macro" relationship are criticized severely by some commentators. First, the workhorse of these empirical researches, cross sectional regressions with legal origins as instrumental variables, is rejected since it fails to satisfy the exclusion restrictions (La Port *et al.*, 2008; Bazzi and Clemens, 2009). Without valid instruments, the cross sectional analysis could suffer from severe endogenous biases.[7] As in a recent book review, Klick (2013) uses the title "Shleifer's Failure" to express his dissatisfaction with Professor Shleifer's negligence on recent development in empirical economics.

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[5] The index is constructed basing on a multinational survey on the regulation of stylized self-dealing transaction, which measures the protection of minority shareholders against controlling shareholders.

[6] A controlling shareholder is usually identified with the criteria that it owns more than 20 percent of a company's voting rights (Enriques and Volpin, 2007).

[7] A recent attempt to correct this failure is the panel analysis by Armour *et al.* (2009), who fail to find any significant positive correlation between shareholder protection and stock market outcomes.

Furthermore, the proxy of shareholder protection, "Anti-director rights index" is biased and constructed with errors (Spamann, 2010). It exhibits home-country bias towards the agency problem that is common in Anglo-Saxons countries, *i.e.* the one between shareholders and management, as the name "Anti-director rights index" suggests (Braendle, 2006). Martynova and Renneboog (2011) try to correct such bias and recognize that potential agency problems in different countries could be heterogeneous. They investigate the legal strategies to deal with different agency problems separately in 30 European countries, and find that the rules are converging.

The home country-bias is lethal in carrying out cross-country empirical analysis. Bebchuk and Hamdani (2009) argue that agency problem between the minority shareholders and management is the major concern for firms with dispersed ownership structure, which is prevalent in both American and British listed firms. Yet it is well documented that in continental Europe, such as Italy and Germany, listed firms often have controlling shareholders. Hence, the major agency problem is between minority shareholders and majority shareholders, and the governance institutions suitable to the Anglo-Saxons listed firms could bring harm to firms with dominant shareholders. They propose to include separated proxies as measures of the institutional arrangements against agency problem between minority and majority shareholders, and minority shareholders and management in the specification of empirical model.

Against the background of law and finance movement, this dissertation tries to evaluate the empirical supports for and criticisms on the theories, and applies them to corporate law and governance reform in China. The First Chapter intends to test the robustness of the empirical proposition that law matters for financial development from a Bayesian perspective. The study replicates and examines the

analysis carried out by DLLS (2008) (The law and economics of self-dealing, Journal of Financial Economics 88 (3): 430-465), which proposes a proxy, "Anti-self-dealing index" for legal protection of minority shareholder against the exploitation of controlling shareholders, and updates the corrected "Anti-director rights index".[8] The authors employ legal origins as the instrumental variables, which fails the exclusion restriction assumption and is invalid (La Porta *et al.*, 2008).

Hence, the problem of model uncertainty, *i.e.* which controlling variables should be included in the model specification becomes prominent. To deal with such problem, the Bayesian Model Averaging (BMA) is applied, which regards that the "true" model or data generating process is unknown and attaches probability to each possible model, and then averages the model-specific estimates of parameter according to Bayesian weights. The analysis finds that the empirical results of DLLS (2008) are not robust and that the "Anti-director rights index" is not significantly correlated with the various stock market outcomes. To test the robustness of the BMA analysis, the Chapter employs the variable selection algorithm stepwise backward elimination. With the both three information criteria, Adjusted R-squared, Bayesian information criterion (BIC) and Akaike information criterion (AIC), the variable "Anti-self-dealing index" is not included as a robust predictor for the various outcomes of stock markets.

As illustrated in the First Chapter, different features of stock market follow different data generating process and theoretical models. The relationship between Initial Public Offering (IPO) market and investor protection is hence

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[8] Self-dealing, or tunneling, is defined by Johnson *et al.* (2000) as transferring value from firms that controlling shareholders hold a smaller proportion of the cash flow rights to firms that controlling shareholders owns a larger proportion of cash flow rights. Controlling shareholders could transfer value in various ways, for example, related party transactions; biased allocation of liabilities; excessive compensation; and others.

undetermined. The rules on shareholder protection impose both benefits and costs on corporate insiders, with the benefits of cheaper external finance and costs of stronger monitoring. The Second Chapter concentrates on the effects of the minority shareholders protection on entrepreneurs' *ex ante* incentives to undertake IPO. Current literature only focuses on the beneficial part of minority shareholder protection on valuation, while overlooks its private costs on entrepreneur's control. The private costs of maintaining control over the firm are modeled by the underprcing of asset in place, which attracts oversubscription of shares to form dispersed ownership structure (Brennan and Franks, 1997). As a result, the entrepreneur is modeled to tradeoff the costs of enhanced monitoring with the benefits of cheap sources of finance when minority shareholder protection improves. The net effects of minority shareholder protection on IPO incentives shall depend on which effects dominate.

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The Third Chapter probes into the corporate governance reform in China against the background of law and finance movement. The recent debates on the subject "law matters" cast doubts on the policy recommendations derived from the law

and finance movement that countries with poor investor protection shall adopt the common-law best practice of shareholder protection during their corporate governance reform. A potential weakness is emphasized by Martynova and Renneboog (2011) that indices following the fashion of "Anti-director rights index" have severe home-country bias. China just fits into their framework, which has actively transplanted the American and British corporate law aiming at solving the agency problem between shareholder group and senior managers.

In contrast, the ownership structure of the listed firms in China is much more complex than that in U.S. and U.K.. On one hand, the government is still the largest shareholder, which holds approximately 83.1% of market capitalization in 2007 (OECD, 2013). Around 22% (254/1170) of the listed firms are ultimately owned by the State, 65% (758/1170) by marketized institutions controlled by the State, and 14% (158/1170) by private parties in the year 2002 (Delios *et al*., 2006). The directors and senior management are selected and monitored by the same public agency, which lacks the incentives and resources to discipline all these officials. Consequently, the listed state-owned enterprises suffer from "tragedy of commons" and the insiders extract large private benefits. On the other, the rest firms without state shareholding are run by controllers tunneling the firm's asset. Pyramidal arrangements are common in private listed firms, which separate the cash flow rights from control rights.[9] Consequently, the rules aiming to constrain the agency problems between shareholder and management does not suit the Chinese problem.

To exacerbate the problem, Chinese corporate law mandates the governance model that shareholder control as the means to the ends of pursuing the

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[9] In contrast, pyramidal control structures are not common in American listed firms, which, according to Morck and Yeung (2005), is due to the taxation of intercompany dividends introduced in 1935 in the United States.

stakeholder interests. As the ownership structure of Chinese listed firms is concentrated, the shareholder meeting is dominated by the controlling shareholders. Given the shareholder passivity argument, minority shareholders are rationally apathetic about the decision rights. Being rational investors, controlling shareholders will use their rights to maximize their own benefits, which include exploiting the interests of minority shareholders. This is especially the case in the situation of state-owned enterprises, where the controllers, the civil servants and management, hold trivial cash flow rights in the listed companies.

To shed light on the corporate governance reform in China, the Chapter combines two recent theoretical developments, *i.e.*, the team production (Blair and Stout, 1999) and the property rights theory of the firm (Hart and Moore, 1990), which argues that considering the feature of team production, the board of directors should be independent from all of the corporate constituencies, rather than either controlled by majority shareholder or influential minority shareholder. In addition, to maximize the value of corporate entity, the enlightened shareholder value (ESV) should be adopted as the ends of the corporate governance.

# 2 Law Matters?: A Bayesian Analysis of the Empirical Law and Finance Literature

## 2.1 Introduction

The contemporary financial scholarship has identified polarization of models of capitalism[10] between two rival groups, on one hand U.K. and U.S. (Anglo-Saxons countries) relying on external equity finance and arms-length transaction, with dispersed ownership structure and high level protection to investors (shareholder-centric objectives of corporation). And on the other German and Japan (Continental Europe), which have concentrated ownership structure, rely on relationship transaction and bank loans,[11] and provide high protection to employees (life-time employment).[12]

One of the most significant divergences between different models of capitalism, the stock market development, attract great attention from the law and finance scholarship. The last decade witnesses the prosperity of law and finance literature, both empirical and theoretical, which discusses the determinants of the

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[10] See Dore (2000) for general discussions on models of capitalisms. Amable (2005: 14) has adopted a much more detailed classification based on five fundamental institutional areas: product-market competition; the wage-labor nexus and labor-market institutions; the financial intermediation sector and corporate governance; social protection and the Welfare State; and the education sector, and proposes five types of capitalism: the market-based model; the social-democratic model; the Continental European model; the Mediterranean model; and the Asian model.

[11] Bank loans, together with the cross-shareholdings among industrial corporations, play important role in corporate finance structures in both countries. Yet there are still some differences within the model of capitalism, as reflected in the statistics of 1995, German firms have more fixed-interest bond market financing, which takes 88% of GDP, while Japanese firms have more stock market financing, which takes 78% of GDP, see Dore (2000: 173).

[12] Dore (2000: 76) gives a description about how the gross value-added is divided among different constituencies during the 1990s. The total surplus is defined as the gross value-added amount minus the tax taken out by the state. In 1995, the employment takes 70%, the capital 13%, and the firm itself, in the form of depreciation and retained earnings 17%.

cross-country capital market diversities, and prescribes policy recommendations that legal reforms should follow the best practice of common law countries, to those developing countries aiming to facilitate the development of their internal markets.

This strand of literature proliferates since the 1990s, and starts from the role of financial markets and intermediaries on the economic growth. Before 1990s, the academic studies view financial development trivial for the economic growth, though Schumpeter (1911) has already argued that banks facilitate the "creative destruction". Robinson (1952: 86) proposes that "where enterprise leads finance follows", and the financial development is seen as a byproduct of the economic growth. In addition, the dominant "financial repression" ideology of Keynesian School, including control of interest rate, requiring high reserve and directing credit programs, were popular among policy maker as ways to finance fiscal deficits without increasing tax or inflation (Ang, 2008).

One influential review by Levine (1997) ascribes the rise of the financial instruments, markets, and institutions to overcoming the asymmetry information and transaction costs, and identifies their five major functions: facilitating trading, hedging, diversifying, and pooling of risk; allocating resources; monitoring managers and exerting corporate control; mobilizing savings; and facilitating the exchange of goods and services. In contrast, banking system may be good at acquiring information at lower costs and establishing long-term relationship with firms and enhancing corporate governance, which is one of the theoretical arguments supporting the efficiency of Continental Europe model of capitalism.

Earlier cross-country empirical studies using the country level data seem to support Schumpeterian ideology, as financial development is proven to be a good

predictor for the economic growth. King and Levine (1993) conduct a pooled cross sectional analysis with data from 80 countries and find the financial development in 1969 is a good predictor of long-run growth over the next 10 to 30 years controlling for the initial capital market development level. In addition, Levine and Zervos (1998) empirically confirms the theories that high liquid stock market will lower the costs of trading equity and hence encourage investors to participate in long duration, high return projects, which stimulate productivity growth.

Firm-level empirical researches provide some evidence for capital market's role in allocating resources to those firms in need. Demirgüç-Kunt and Maksimovic (1996) find out that the level of activity of the market (turnover ratio) is positively correlated with the percentage of firms growing at a rate faster than the maximum growth rate (calculated using financial planning model) that can be financed internally or with limited access to the market for long-term capital. Rajan and Zingales (1998a) employ the assumption that industries differ in their reliance on external finance due to technological reasons, and rank them according to their need. The within-country, between industries analysis finds that those industries more reliant on external financing grow faster in the countries with more developed financial market. Furthermore, they ascribe these fast-growing effects to disproportionally high percentage of new establishment of firms, which may confirm the role of financial development in "creative destruction".

In addition, the distributional effects of financial development seem to be very intriguing. Beck *et al*. (2007) establish that the credit by financial intermediaries to the private sector both reduces the income inequality, and increases the aggregate economic growth. Claessens and Perotti (2007) review the potential explanations for such effects, and argue that in countries with less developed

financial markets, the poor are biased away from the assess to external finance. The inequality, especially in countries with weak institution, where *de facto* political influence dominates *de jure* political representation, is more severe, since the incumbents will protect their rents and power. Another group benefits from financial development is the small firms. In theory, small firms, which are lack of economy of scale, are in greater difficulty to access to external finance due to informational and transactional costs. Beck *et al*. (2008) argue that financial development has a comparative advantage in reducing the barrier of fixed costs than direct subsidy, and exerts a disproportionately positive effect on small firms.

However, financial development does not bring pure benefits, one backfiring comes from the recent financial crisis, originating from the 2008 Subprime Crisis in the USA, then spreading to the world and resulting in a drastic drop of the world GDP growth rate and soaring unemployment rate. The liquidity provision and risk sharing function of the financial markets generate the "systemic risk", which gains attention from both the academics and practitioners. Under traditional financial thinking, the investors and market participants could protect themselves from the idiosyncratic risk through holding a diversified portfolio, but still they will suffer from the systematic risks. Hellwig (1994) has repeatedly argued that attempts to shift risks can lead to a situation where these risks come back in the form of counterparty credit risks.

Kaufman (1996) points out that within the banking system, this interconnectedness among institutions and individuals derives from the balance sheet of the banks, because the assets and liabilities of these institutions tangled with each other. However, as the disintermediation level is much higher now, the financial innovative instruments shift the risk among a broader participants base with different risk preference. As a result, the interconnectedness is among all the

market participants. Kaufman (1996) defines systemic risks as "the probability that cumulative losses will occur from an event that ignites a series of successive losses along a chain of institutions or markets comprising a system". From the definition we can see that the interconnectedness is the primary feature of the systemic risk. That is to say if one financial institution is subject to a significant loss and goes bankrupt, but its failure has no lethal effects on other institutions, the risk would not be classified as the systemic risk. Only those that would result in a series of institutions experiencing significant losses, may be treated as systemic risk.

Schwarcz (2008) synthesizes the former researches and puts forward that the systemic risk is "the risk that (i) an economic shock such as market or institutional failure triggers (through a panic or otherwise) either (X) the failure of a chain of markets or institutions or (Y) a chain of significant losses to financial institutions, (ii) resulting in increases in the cost of capital or decreases in its availability, often evidenced by substantial financial-market price volatility". Compared with the former one, this definition considers the cause of systemic risk as the economic shock, instead of other events. Furthermore, not only the significant loss, but also the failure of institutions could be regarded as the phenomena of the systemic risk. Finally, the result of the systemic risk is the contraction of liquidity. Both the definitions highlight the chain-reaction as the key characteristic of the systemic risk.

The risk is due to market failure[13] that self-interested market participants optimize risk exposure to the extent that their marginal costs equal marginal benefits. They do not take into account the negative externalities that its failure

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[13] Schwarcz (2012) identifies four reasons causing the market failure, they are information failure due to complexity, bounded rationality, principal-agent failure, and incentive failure.

imposes on other firms.[14] Bertezzolo (2009) points out that the global financial regulatory system is still a segmented one and lacks a consolidated regulatory authority, which fails to accommodate the globalization trend in economic development. If the world is segmented, when one country is trapped into financial difficulties, other countries would not be affected, because there are no counter-party risks and the well-functioned countries have no risks of exposure. But when the world is integrated, even one company goes bankruptcy, the world economy will be in trouble, the bankruptcy of the Lehman Brothers Holdings stands as an example.

Though the Subprime Crisis sounds the alarm for the regulatory failure of the financial markets, a lot of developing countries still need to develop their own financial markets to provide external finance to their firms' growth. Law and finance theories predict that legal institutions are determinants of financial market development, and prescribe that developing countries shall follow the common-law style regulatory framework. Their policy recommendations strongly rely on the cross-country regressions, which overlook the model uncertainty problem. To shed light on the discussion about the relationship between stock market outcomes and legal institutions, this Chapter takes a Bayesian approach to evaluate the current empirical literature. Section 2.2 reviews the major law and finance studies on the legal institutions that is important to stock market development. Section 2.3 surveys the competing theories and empirical evidence. And Section 2.4 introduces the Bayesian algorithm. Section 2.5 introduces the data set. Section 2.6 presents the empirical outputs, and Section 2.7 presents the robustness check analysis with variable selection algorithm stepwise backward elimination. And Section 2.8 concludes.

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[14] Report of the President's Working Group on Financial Markets, Hedge Funds, Leverage, and the Lessons of Long Term Capital Management at pp. 31 (April 1999).

## 2.2 Theory of law and financial market development

If the stock market is an important source of economic growth, one question naturally following the above statement is which factor determines its development. Over the last decade of studies, the academic seems to locate a variety of factors which are associated with the development of stock market. Though several reviews have already been done in the literature (La Porta *et al.*, 2008; Xu, 2011), this section focuses primarily on the empirical evidence, which paves the way for the Bayesian analysis. Generally speaking, these factors could be disentangled into two categories: One includes time-invariant/predetermined factors, which are usually claimed to be exogenous to the financial development, while the other includes the time-variant and endogenous ones.

### 2.2.1 Legal origins

The most influential, well-examined and debated exogenous factor identified in the literature influencing both the economic growth and financial development shall be the legal origins, which some countries receive exogenously and involuntarily due to the history of being conquered and colonized. Legal origins defined by La Porta *et al.* (2008) stand for "a style of social control of economic life (and maybe of other aspects of life as well)", and first serve as the instrumental variables for the endogenous institutional variables. Mahoney (2001) argues that the common law countries have fewer governmental restrictions on economic and other liberties, while the civil law countries try to build institutions to further the power of the state, the distinction of which is first demonstrated by Hayek (1973).

The two origin countries, U.K. and France, form their particular style of social control of economic life, according to Glaeser and Shleifer (2002), during the twelfth and thirteenth centuries, when they develop their first national court systems. They argue that in U.K., the decentralized juries are closely involved, while in contrast, the French professional judge dominates the court. However, a further investigation by Klerman and Mahoney (2007) trace the divergence to a much later date, to the seventeenth and eighteenth centuries, and argue that the parties that judges allied with during the revolution determines their power later on. In U.K., judges had sided with the victorious Parliament, while their French peers lose their power in the wake of the revolution, as they stand against the Napoleon's legal reforms. Their power to make law is eliminated and they could only apply the codified rules made by the legislature.

The pervasive explanatory power of legal origins is documented by a series of studies conducted by LLSV and their coauthors, who find that legal origins are correlated with a wide variety of institutions, such as the shareholder power (LLSV, 1998), Anti-self-dealing rules (DLLS, 2008), property rights protection (Claessens and Laeven, 2003), and judiciary efficiency (La Porta *et al.*, 2004). La Porta *et al.* (2008) survey such institutions and classify them into procedural formalism, judicial independence, regulation of entry, government ownership of the media, labor laws, conscription, company and securities law, bankruptcy law, and government ownership of banks, which further influence the financial market development.

Beck *et al.* (2003) first empirically test the two competing theories explaining why the legal origins influence the financial market development, *i.e.* the political channel that common law countries protect the individual property rights from exploitation of states (pro individual), while civil law countries protection

property rights conditioned on state welfare (pro state), and adaptability channel that common law adjust to changes of the market more quickly as it recognizes the judge-made law, whereas the legislative-made statute in civil law countries is more rigid. They find that the adaptability of the legal system in a given country is more important than its political attitude towards property rights in facilitating financial market development.

However, the pervasiveness is also regarded as the major caveat that invalidates legal origins as the instrumental variables. The exclusion restriction requires that the instruments could only influence the outcome variable through the instrumented variables, otherwise the estimated coefficient is biased (Bazzi and Clemens, 2009). [15] Though legal origins are still exogenous to economic outcomes, it is difficult to control for all potential relevant factors. This caveat for empirical law and finance studies is the major impetus for this paper, aiming to test the validity of the argument that legal institutions matter.

**2.2.2 Law on the book**

Ever since the seminal work "Law and Finance" (LLSV, 1998), the law and finance literature tries to establish the notion that legal rules shapes the stock market development. Shleifer and Vishny (1997) first argue that the competing corporate governance systems "outsider/arm's-length" v.s. "insider/control-oriented" are an efficient response to the legal protection of the shareholders. Where shareholders are ill-protected, such as in civil law countries France and Italy, they protect themselves through becoming the controlling

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[15] Without valid instruments, the causal inference based on cross sectional analysis is vulnerable, and recent studies start to exploit other identification assumptions, such as "quasi-natural experiment". Haselmann *et al.* (2009) employ the exogenous shocks imposed by European Union to 12 transitional countries in Eastern Europe, which force them to adopt the transplanted model law. They show that improvement in collateral regime is of greater importance for lenders than in bankruptcy regime.

shareholders of the firm. In contrast, where shareholders are well protected, they enjoy the status of minority shareholders and the benefits of diversification. This theoretical explanation is empirically supported by LLSV (1998), who find the negative relationship between ownership structure and the "Anti-director rights index".

The scholarship continues to provide with both theoretical and empirical evidence between the "law on the book" and stock market development for nearly one decade. Pagano and Volpin (2005, 2006) construct a panel data set of "Anti-director rights index" based on the methodology of LLSV (1998), and confirm their conclusion that minority shareholder protection facilitates the stock market development, though the effect is much smaller. In addition, DLLS (2008) argue that the "Anti-self-dealing" rules, which prevent the majority shareholders from exploiting the minority shareholders, facilitate the stock market development. And Cumming *et al.* (2011) investigate the trading rules in the major 42 stock markets, and find that the stock market activity proxies are strongly correlated with the rules for insider trading and market manipulation.

However, country-specific case studies seem to provide challenge evidence. Cheffins (2001) looks into the business history of U.K., and suggests that the ownership structures of listed firms had already become dispersed long before the concept of corporate governance was established. Coffee (2001) further argues that the causality is reversed in U.S. that the legal developments came after the dispersed ownership arose.

## 2.2.3 Enforcement strategies

The enforcement strategy is another dimension of the legal system, which transforms the threat of the formal rules into punishment, and imposes costs to infringers. According to Becker (1968), individuals committing crimes will weigh the expected costs and benefits of the behavior. The expected costs of crime equal the punishment demand by the "rule on the book" multiplied by the probability of getting caught determined by the enforcement strategies.

By enforcement strategies, the author means two distinctive but related issues, the enforcement of the contracts and the enforcement of "rule on the book". Contract enforcement is important when some transactions must be arranged non-simultaneously, in which the *quid* is needed at one time or place and the *quo* at another. One influential indicator for the enforcement of contract is the contract intensive money (CIM), which is defined as the "ratio of noncurrency money to the total money supply, or (M2-C)/M2, where M2 is a broad definition of the money supply and C is currency held outside banks" (Clague *et al.*, 1999). Their assumption is that where contract is unreliable, the market participants are willing to arrange transactions through currencies as they are with discretion, then CIM will decrease. In contrast, where contract is well-enforced, the convenience and safety of the transactions through banks will make the CIM increase. The empirical evidence shows that CIM is positively correlated with the development of the industries inherently dependent on contract enforcement, such as the insurance and finance sector, which further facilitate investment and growth.

Djankov *et al.* (2003) survey the 109 countries using the representative case studies, and find that the time to collect a bounced check or evict a tenant varies significantly across countries. In addition, the Lerner and Schoar (2005) study a

specific channel, that is "the ability of investors to enter into complex, state-dependent contracts", through which the quality of enforcing contracts shall matter for the financial development. The patterns of private equity investment is found correlated with the quality of contract enforcement. The funds tend to use convertible preferred stock in countries with high quality of contract enforcement, while in countries with poor enforcement they tend to use common stocks and debts, which result in less efficient results with lower valuation.

On the other hand, the enforcement of legal rules can be divided into two channels: one is public enforcement, and the other is private enforcement. For public enforcement, studies show that both input and output are important. Bhattacharya and Daouk (2002) reveal that the first prosecution of the insider trading across different countries matters for market liquidity. They construct the data set on the dates when the first prosecution is launched, and observe that a large proportion of countries with Anti-insider-trading rules have no enforcement outputs in fairly long subsequent years. And the first enforcement rather than the announcement of the Anti-insider-trading laws greatly increase the market confidence and liquidity.

Like enforcement outputs, the public inputs are also shown to be correlated with the stock market. The inputs contain two aspects, first, the formal power that the public authority enjoys, which is investigated by La Porta *et al.* (2006) and found to facilitate the stock market development. And the second, the public resources owned by the enforcers, such as the staff number and budget. Jackson and Roe (2009) show that the second factor dominates the first in cross-sectional regressions.

Another channel is the private enforcement, *i.e.* the private litigation to sue those corporate insiders. Shleifer (2005) argues that pure strategies relying on private

litigation and public regulation have great social costs, but the combination of the two could greatly reduce the costs. The success of the strategy relies on two crucial conditions: first, the quality of information disclosure requirement, and second, the efficiency of the judiciary system. La Porta *et al.* (2006) also investigate the disclosure standards and argue that it is more prominent in determining stock market development, the result of which is confirmed by Jackson and Roe (2009) that disclosure standards are not dominated by the resource-based input index. However, there are no direct studies on the efficiency of courts in solving the disputes relating to the financial disputes. Only Djankov *et al.* (2003) shows that there is significant divergence in each country's practice, both in duration and formalism, to enforce the contracts.

## 2.2.4 Property rights protection

Protection of property rights has been identified as one of the most important features, which common law and civil law countries differ in (Mahoney, 2001). Glaeser and Shleifer (2002) and Klerman and Mahoney (2007) both identify the individual property rights protection as the source leading to the divergence of the priority given to the rights of individual *vis-à-vis* the states between civil law and common law countries.

One part of the literature regard property rights protection as the outcome variables, for example, Beck, Demirgüç-Kunt, and Levine (2003) try to test the hypothesis of historical determinants of property rights among the three alternative theories, *i.e.* the legal origins, endowment and culture, and discover that the legal origins and the endowment theories are both significant in explaining the divergence in property rights protection. One more recent paper by Ayyagari *et al.* (2008) using survey data on entrepreneur's perception of the

security of property rights, finds that legal origins and the geographical characteristic (latitude) explain most part of the cross sectional variance of the property rights. Ayyagari *et al.* (2013) employing a more robust technique, the Directed Acyclic Graph (DAG) methodology, to disentangle the complex causal relationship among different historical determinants, and find that the ethnic fractionalization dominates other factors in explaining the property rights.

The other part of literature tries to explain why property rights are crucial to financial outcomes. Johnson *et al.* (2002) provide empirical evidence that secure property rights are both necessary and sufficient condition in determining firms' reinvestment rate. Firms' willingness to invest determines both the economic growth rate, and the demand for external finance, hence the development of financial market. Claessens and Laeven (2003) suggest that security of property rights also influences firms' asset structure: Firms in countries with weak property right protection invest more in the fixed asset, whereas firms in countries with strong one, invest more in tangible asset. The distortion especially impedes the investment in innovation, which determines the economic growth.

## 2.3 Alternative theories of financial market development

Obviously, the law and finance theories are only part of the discussion on determinants of financial market development. Other studies also find empirical correlations between financial market outcomes and colonization strategies, political factors and culture respectively. These competing theories make the cross-sectional analysis suffer from omitted variable biases if the model specification fails to incorporate these alternative explanatory variables as controls. This section reviews the competing influential theories on financial market development.

## 2.3.1 Colonization strategies

Other than legal origins, the colonization strategies are another aspect that influences the quality of transplanted legal rules. These literature identifies three specific mechanisms: First, it is argued that the quality of the transplanted rules persists and determines the later economic outcomes. Second, the transplant process, which relates to the transplanted countries' familiarity with the legal rules and adaptability of the rules to its own environment, is very important. Third, not only the legal rules, but the other colonization policies could determine the financial market outcomes.

First, Acemoglu *et al.* (2001) investigate the settlement strategies of the European colonizers, and argue that rather than the types of "social control of economic life", the quality of the institutions established by the colonizers determines the quality of current institutions and hence influence the economic outcomes. They further propose that prosperous regions with high population density or urbanization level are established with the "extractive institutions" by settlers, while in those poor areas, they develop the institutions of "private property" (Acemoglu *et al.* 2002). Beck *et al.* (2003) use the data from 70 former colonies and run a "horse race" between the quality of transplanted institutions and legal origins to see which determine the financial market development. Their results seem to support that both of the exogenous factors are correlated with the financial development, yet the quality of transplanted institutions has greater explanatory power.

One of the crucial assumptions taken by both legal origins theory and pattern of colonization theory is that the previous transplanted institutions will influence the current ones, that is to say, there is high path-dependence with respect to

institutions even they are not efficient. The assumption is questionable on the basis of the Coase Theorem, which argues that if the property rights are well-defined and there are no transaction costs, economic and political transaction will create great incentive for achieving most efficient political and institutional outcomes, at least approximately (Coase, 1960). In a subsequent paper, Acemoglu (2003) suggests that the conflict of interests between those politician making policies and social welfare, could lead to adoption of inefficient policies. The caveat that no enforceable contracts between the politics and voters could be written prevents the potential to reach the efficient outcomes advocated by Political Coase Theorem.

Second, Berkowitz *et al.* (2003a, 2003b) argue that the law and finance literature emphasizes the role of the transplanted "law on the book", but fail to pay attention to the transplanted process, which is defined as the "transplant effect". They first distinguish the origin countries from the transplanted ones, which is important since legal origins should be exogenous only to those transplanted countries in contrast to the origin countries, which develop their own legal origins. For those transplanted countries, the transplantation process matters as the local legal authority and intermediaries ought to develop respective mechanisms to enforce the formal rules and meeting the local demand. They measure the "transplant effect" based on the familiarity about the transplanted rules, and the adaptation to the local situation. The transplantation process proves to be highly influential to the legality of the given country, which directly influence the economic outcomes.

Third, Klerman *et al.* (2011) propose another interpretation of the colonial history, *i.e.* the legal traditions are only part of the institutions imposed by the origin countries, and as a result, its universal explanatory power may take the advantage of other policies, such as education or health policies. They re-codify both the

legal origins and colonial origins using much more detailed criteria. Their identification strategy depends on the incomplete overlaps between British colonies and countries with British legal origins. They argue that if the legal origins are the crucial determinants, British colonies with mixed legal systems shall perform worse than those common law British colonies.

## 2.3.2 Political factors

The most influential competing theory to the legal explanation of stock market development is the political theories. The intuition is straight forward, as financial development exerts heterogeneous effects on different social groups, those having power to shape the policies will react accordingly to protect their benefits. The path-breaking research comes from Rajan and Zingales (2003), who argue that the time-invariant factors, such as legal origins, fail to incorporate the dynamics in financial development. Some of the countries with advanced financial markets in the beginning of 1900s become countries with less developed financial markets.

They argue that external finance is crucial for new entrants and innovation in the product markets. And hence the industrial and financial incumbents, who have established close alliance, and have natural advantage than dispersed small firms and individuals suffering from collective action problem, will use their political power to shape the public policies towards entry-deterring. The integration of the local economy to that of the world would significantly reduce these incumbents power to influence the policy formation, and hence facilitate economic growth.

Pagano and Volpin (2006) propose a political model to investigate how power of shareholders could influence the stock market development. In their model, when the power of the shareholders rises, they will vote for pro shareholders rule, and as

a result, lowers the costs of external finance. The growing number in shareholder group will increase their political power in the state, and subsequently increase shareholder protection. The feedback loop will generate positive relationship between shareholder protection and stock market development.

Two articles follow the line of trade matters and investigate further the role of the affiliated political groups that influence the financial development. Do and Levchenko (2007) look into the demand side of the financing market and propose that the comparative advantage in trade will affect the technologies involved in a country's production process, and therefore influence its demand for external finance. To deal with the simultaneity problem, they employ a 2SLS gravity regression, using instrumental variable the "predicted external finance need of exports" for a given country. The country having a comparative advantage in the sectors, which heavily rely on the external finance, end up with more developed financial market.

Braun and Raddatz (2008) instead try to identify the different industrial sector as promoter or opponents of financial market development according to its influence on their private rents. They employ the trade liberalization as the source of variation, and transfer the attitude into the real power to influence the policy using the proxy "strengthening of promoters", which reflect the changes of the private rents before and after the event. The variable is proven to be a good predictor of the development of subsequent financial depth.

Roe (2006) argues that the dichotomy between common law and civil law countries in density and intensity of stock market regulation is elusive as measured by the number of staff and the budget of public regulators. The countries with both origins regulate the economy, but in different aspects:

Common law countries regulate the stock markets, while civil law countries regulate their labor markets. The labor protection index constructed by Botero *et al.* (2004) is found better predicting the stock market development (Roe, 2006). Such effects are ascribed to the World War II that devastates the family wealth in the civil law countries, while leaves those in common law countries intact. As a result, the human capital account for a larger proportion of the family wealth in civil law countries, and hence the regulation relatively protects labor, while in contrast, the common law countries employ regulations to protect stock market.

In a later article, Roe and Siegel (2011) further provide evidence that the political instability caused by social inequality could lead to weak stock market. The major channel, through which instability influence the stock market development, lies in that sound institutional arrangements, such as legal protection of shareholders or courts and regulations, could not function well in an unstable environment.

## 2.3.3 Culture

The most prominent and established story supporting the role of culture in facilitating the capital market development is that charging interest can be a sin in one religion but not in another (Stulz and Williamson, 2003). They first empirically investigate the role of religion on various financial outcomes, and find that religions have larger explanatory power than legal origins in explaining banking sector, and Catholic countries have smaller banking sector relative to GDP than that of Protestant ones. Guiso *et al.* (2006) provide theoretical reasoning on the mechanism through which culture influences the economic outcomes and argue that culture is crucial in determining the expectation and preference, which determines the level of trust that influence the economic outcomes.

Except religions, the social attitude towards uncertainty also shapes the development of the financial market. Using the culture proxies constructed by Hofstede (2001), Kwok and Tadesse (2006) find that the "Uncertainty avoidance index" significantly predicts the cross-country relative importance of stock market to bank sectors. In addition, the "Individualism index" is established to be correlated with the stock market trading pattern (Chui *et al.*, 2010). They especially find that the return of the momentum portfolio significantly and positively relates to the index, which is consistent to the theoretical concern that investors in different cultures interpret information in different ways and are subject to different biases.

## 2.4 Bayesian approach

This section takes a different approach, the Bayesian analysis, from the traditional empirical studies. It is confusing that different empirical specifications come with diverse empirical explanations for the stock market development. Since legal origins are no longer valid instruments, the problem of model uncertainty, which is overlooked by the literature, now becomes prominent. The cross-sectional results are fragile in the sense that they are sensitive to inclusion of new relevant regressors. Though normally empirical articles will incorporate a section named "Sensitivity Analysis", it differs from the concept of "global sensitivity analysis" considered by Leamer (1983, 1985). The uncertainty problem could easily be solved if the sample size grows to infinity, which allows all the potentially important determinants of stock market development included in the model specification. However, for macro data, the sample size is normally small and the precious degrees of freedom limits inclusion of too many variables.

To account for the model uncertainty, this paper admits that the "true" model is unknown and attaches probability to each possible model. This approach of dealing with the problem of variables selection is known as Bayesian Model Averaging (BMA), which has already been extensively applied in the growth empirics.[16] The technique averages the model-specific estimates of parameter according to Bayesian weights. The algorithm developed by Magnus, Powell, and Prüfer (2010, hence forth MPP) and De Luca and Magnus (2011) is adopted. To illustrate the problem, a generic representation of the linear cross-country stock market development regression is given as follows:

$$y = \alpha + X\beta + \varepsilon = \alpha + X_1\beta_1 + X_2\beta_2 + \varepsilon \tag{1}$$

Where $y$ is a vector of the proxies for the stock market development, and $\alpha$ is a vector of intercepts. The $X$ is a set of determinants of stock market development, which usually comprises two parts, the free variables $X_1$, and the controlling variables $X_2$, where the model uncertainty arises.[17]

As the law and finance theories do not provide enough guidance to specify the structural model, the empirical practice sometimes includes discretional sets of $X_2$ according to the investigators' preferences. The focus variables in previous studies now and then do not enter as controls in others. For example, property right protection are shown to be correlated with the stock market development (Acemoglu and Johnson, 2005), yet both La Porta *et al.* (2006) and Jackson and Roe (2009) discussing the enforcement strategies, fail to include it as controls.

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[16] For earlier applications of modified version of "extreme bounds analysis" in the growth regressions, see Levine and Renelt (1992), and Sala-i-Martin (1997). For applications of BMA, see Brock and Durlauf (2001), Fernández *et al.* (2001), and Sala-i-Martin *et al.* (2004).

[17] The free variables usually contain more than focus variables, see Leamer (1983) for discussion about the terminologies of the focus variable, free variable and doubtful variable.

## 2.4.1 BMA algorithm

The Bayesian thinking differs from the classic statistics in that the parameters in the regression are deemed to be uncertain, which therefore have probability densities. So BMA aims to find the best possible model, rather than the best possible estimate, of which the "true" value is not observable. Each model estimated will contribute to the knowledge of the distributions of the parameters, and a systematic way of averaging is applied to combine all the information.

The paper focuses on the linear approximation, which is represented by Equation (1). Suppose that there is a sample of $n$ countries, whose stock market development proxies are grouped in the vector $y(n \times 1)$. The matrix of explanatory variables $X$ is divided into two submatrices as mentioned in Section 1, $X_1$ ($n \times (k_1+1)$)and $X_2$ ($n \times k_2$), which comprises ($k_1+1$) free variables (including the intercept $\alpha$) and $k_2$ doubtful variables. In addition, both $k_1$ and $k_2$ are assumed to be equal or larger than 0, with $k_1+k_2 \leq n-1$, and $X$ is assumed to have full column-rank.

The model uncertainty arises as whenever a different subset of $X_2$ is excluded. The exclusion of doubtful variables means that the corresponding elements of $\beta_2$ are set zero (Raftery, Madigan, and Hoeting, 1997). Generally speaking, the number of possible models to be considered is $I = 2^{k_2}$, the $i^{th}$ of which is denoted by $M_i$, and given by Equation (2)

$$y=\alpha+X_1\beta_1+X_{2i}\beta_{2i}+\varepsilon \tag{2}$$

where $X_{2i}$ is an $n \times k_{2i}$ matrix of observations on the included subsets of $k_{2i}$ doubtful variables, and $\beta_{2i}$ denotes the corresponding $k_{2i}$ subvector of $\beta_2$. Also, Equation (2)

could be regarded as Equation (1) subjected to restrictions that $(k_2 - k_{2i})$ components of $\beta_2$ equal zero.

The model space $I$ is given by the number of doubtful variables, $k_2$. For example, if the research is directed to test whether the endowment or legal origins theory robustly correlates with the stock market development, a simplified research question investigated in Beck *et al.* (2003), in this case $k_2 = 2$. Further, suppose that there are no free variables except for the constant and $k_1 = 0$. The model space is then $I = 2^2 = 4$: one with only intercept, one with intercept and both endowment proxies and legal origins, the rest two with intercept and either endowment proxies or legal origins.

The BMA algorithm employed is developed by MPP (2010), and the rest of the subsection presents the algorithm deducing estimates of both $\hat{\beta_1}$ and $\hat{\beta_2}$, and their variances, which differs from traditional estimators in that it is the expectation of the stochastic beta, in Bayesian sense, conditional to the observed data. Unlike the classic estimator of the parameters, the BMA considers every estimate of the parameters of interest conditional on the model space, and then computes the unconditional estimate as a weighted average of the conditional estimates. The estimators for the coefficients of free variables are given by

$$\hat{\beta_1} = E(\beta_1|y) = \sum_{i=1}^{I=2^{k_2}} \lambda_i \hat{\beta}_{1i} = \sum_{i=1}^{I=2^{k_2}} p(M_i|y)E(\beta_{1i}|y,M_i) = \sum_{i=1}^{I=2^{k_2}} p(M_i|y)\hat{\beta}_{1i} \qquad (3)$$

For its variance,

$$\text{Var}(\hat{\beta_1}|y) = \sum_{i=1}^{I=2^{k_2}} \lambda_i(\hat{V}_{1i} + \hat{\beta}_{1i}\hat{\beta}_{1i}^{T}) - \hat{\beta_1}\hat{\beta_1}^{T} =$$

$$\sum_{i=1}^{I=2^{k_2}} p(M_i|y)[\text{var}(\beta_1|y,M_i) + E(\beta_{1i}|y,M_i)E^{T}(\beta_{1i}|y,M_i)] - E(\beta_1|y,M_i)E^{T}(\beta_1|y,M_i)$$

The estimators for the coefficients and variances of doubtful variables are similar to those of the free variable, except that a selection matrix $T_i$ is involved.

$$\hat{\beta}_2 = E(\beta_2|y) = \sum_{i=1}^{I=2^{k_2}} \lambda_i T_i \hat{\beta}_{2i}$$

$$= \sum_{i=1}^{I=2^{k_2}} p(M_i|y)T_i E(\beta_{2i}|y,M_i) = \sum_{i=1}^{I=2^{k_2}} p(M_i|y)T_i \hat{\beta}_{2i}$$

(4)

$$\text{Var}(\hat{\beta}_2|y) = \sum_{i=1}^{I=2^{k_2}} \lambda_i T_i (\hat{V}_{2i} + \hat{\beta}_{2i}\hat{\beta}_{2i}^T)T_i^T - \hat{\beta}_2\hat{\beta}_2^T =$$

$$\sum_{i=1}^{I=2^{k_2}} p(M_i|y)T_i^T[\text{var}(\beta_{2i}|y,M_i) + E(\beta_{2i}|y,M_i)E^T(\beta_{2i}|y,M_i)]T_i^T - E(\beta_2|y,M_i)E^T(\beta_2|y,M_i)$$

where $T_i$ is $(k_2 \times k_{2i})$ selection matrices defined by $T_i^T = (I_{k_{2i}},0)$. As a result, $T_i\beta_{2i}$ is the $k_2 \times 1$ vectors setting to zero the elements of $\beta_2$, which are excluded from model $M_i$. The $\lambda_i$ in these Equations are the weights derived from the Bayes' rule conditioning on the observed data set, which is given in next subsection.

## 2.4.2 BMA weights $\lambda_i$

The weights $\lambda_i$ of parameter estimates in the model space equal the corresponding posterior probability for the model $M_i$, and is of the form

$$\lambda_i = p(M_i|y) = \frac{p(M_i y)}{p(y)} = \frac{p(M_i)p(y|M_i)}{\sum_{i=1}^{2^{k_2}} p(M_i)p(y|M_i)}$$

The independent priors are assigned equally to each model meaning that $p(M_i)$ equals $2^{-k_2}$. The marginal likelihood, $p(y/M_i)$, is an integral of the multiplication

of the prior probability of parameters and the sample likelihood ratio, and given by

$$p(y|M_i) = \int p(y|\beta_1, \beta_{2i}, \sigma^2, M_i) p(\beta_1, \beta_{2i}, \sigma^2|M_i) d\beta_1 d\beta_{2i} d\sigma^2.$$

To get the joint prior distribution $p(\beta_1, \beta_2, \sigma^2|M_i)$, MPP adopts the conventional non-informative prior on the free parameters $\beta_1$ and error variance $\sigma^2$, together with an informative Gaussian prior on the doubtful parameters $\beta_{2i}$, which assumes that conditional on the parameter $\beta_1$, variance and the model space, $\beta_{2i}$ follows the normal distribution. And as a result, the conditional joint prior is of the form

$$p(\beta_1, \beta_2, \sigma^2|M_i) \propto (\sigma^2)^{(k_{2i}+2)/2} \exp(\frac{-\beta_{2i}^T V_{0i}^{-1} \beta_{2i}}{2\sigma^2}),$$

where $V_{0i}$ is a positive definite $k_{2i} \times k_{2i}$ matrix. [18] The uninformative prior reflects the setting of the model that free variables $X_1$ are always included in the model, while the informative priors assume that the conditional distribution of $\beta_{2i}$ is normal.

The other component of $\lambda_i$, the marginal likelihood of model $M_i$, which is derived from the sample likelihood function, is of the form

$$f(y|\beta_1, \beta_{2i}, \sigma^2, M_i) \propto (\sigma^2)^{-n/2} \exp(\frac{-\varepsilon_i^T \varepsilon_i}{2\sigma^2}),$$ where $\varepsilon_i$ is the residual of the $i^{th}$

model.

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[18] $V_{0i}$ takes the standard form, $V_{0i}^{-1} = gX_{2i}^T M_1 X_{2i}$, proposed by Zellner (1986) and Fernández *et al.* (2001), where g=1/max($n,k_2^2$), $M_1$ is a symmetric and idempotent matrix, $I_n - X_1(X_1^T X_1)^{-1} X_1^T$

## 2.5 Data set and variables

The data set consists of cross sectional observations of the 48 countries and districts, which is a subsample of the one in DLLS (2008).[19] The definitions, sources and descriptive statistics are shown in Table 2.1. The 48-country sample has two advantages: first, it is investigated more thoroughly than other larger data sets. Though studies keep coming out with new determinants of the stock market development, most of them do not share the same sample. Hence, there is a trade-off in selecting the most appropriate data set, which usually means fewer variables enter the BMA analysis as the sample size increases. Second, according to La Porta *et al.* (2006), the sampled countries account for the majority share of the world stock market capitalization in the beginning of the 1990s.

To make our work comparable to DLLS (2008) and reduce the computational burden, the restricted model is set according to their basic specification, including "Anti-self-dealing index (ANTISDI)", "Time to collect a bounced check (CHECK)", and "GDP per capita (GDPPERCAPITA)". These three independent variables and the intercept are the free variables consisting of $X_1$ in Equation (1). Furthermore, 26 doubtful variables identified in the previous literature are included and form $X_2$. Finally, the dependent variables are proxies for the stock market development, including "Market capitalization to GPD (CMMKT)", "Ln of Number of listed firms (LISTED)", "IPO value to GDP (IPO)", and the market liquidity proxy "Stock traded to GDP (STRADED)". The stock market liquidity proxy STRADED is not included in DLLS (2008), though it is a very important characteristic.[20] The descriptive statistics and data sources are shown in Table 2.1.

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[19] The sampled countries and districts are the same as those employed in LLSV (1998), except that Taiwan is excluded because its data is extremely fragile.

[20] Earlier studies have indentified that high stock market liquidity stimulates productivity growth (Levine and Zervos, 1998) and affects firm performance and operating profitability

## 2.6 Discussions of outputs

### 2.6.1 Estimation with only restricted variables

I first replicate the prior analysis of ANTISDI reported in Table 6 of DLLS (2008) with the smaller sample of 48 countries to show that the sampling problem is not a source of bias. The outputs are shown in Table 2.2. The specification only includes the free variables and follows the one that DLLS employ. Unsurprisingly, ANTISDI is significant in the three regressions with dependent variables CMMKT, LISTED, and IPO, yet insignificant in the regression with the dependent variable TRADE, which is not included in DLLS (2008).

### 2.6.2 Bayesian model averaging

The outputs of BMA analysis with 26 doubtful variables and 4 free variables (including the intercept) are reported in Table 2.3. The model space is $2^{26}$ (approximately $6.7*10^7$) for each Panel, and every Panel has three columns. The first two report the posterior mean of coefficients given by Equation (3) and (4), and the related Bayesian "t-statistic", while the third one reports the posterior inclusion probability (PIP) of the respective variables, according to which the doubtful variables are ranked. A regressor is seen as robustly correlated with the dependent variable, if the corresponding t-statistic is greater than 1 in absolute value, or PIP is larger than 0.5, in which case the adjusted $R^2$ shall rise after inclusion of the corresponding regressor (MPP, 2010; De Luca and Magnus, 2011).

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(Fang *et al.*, 2009). And Cumming *et al.* (2010) only discuss the role of exchange rules on stock market liquidity.

**2.6.2.1 Robustness of "Anti-self-dealing index"**

As stated at the beginning of this Chapter, one of the major purposes is to test the robustness of the established positive correlation between "on-the-book" Anti-self-dealing rules and the stock market development considering the model uncertainty. To check if the free variables have robust correlation with the dependent variables, we have to rely on the t-statistics since the PIP is always 1. In sharp contrast to its high significance in regressions of restricted specification and the one in DLLS (2008), ANTISDI has only one robust correlation with the dependent variable CMMKT. The previous identified correlation seems to be fragile. The fragility of the relationship is actually reflected in DLLS (2008) when they add the variable "Tax evasion", the results of which are reported in Table 12 of their paper. ANTISDI quickly loses its explanatory power, which DLLS ascribe to the fact that the variable is "a subjective variable highly correlated with perceptions […] of the quality of corporate governance as proxied by the perceived incidence of insider trading" (DLLS, 2008: 456).

**2.6.2.2 Doubtful variables significantly correlated to stock market development**

Several of the doubtful variables also emerge as the robust determinants of stock market development according to the criteria proposed before (PIP>0.5, or $|t-statistic|>1$). Unlike in economic growth regression, the popular proxy for stock market development usually reflects one dimension of the market, and hence one of interesting observations in Table 2.3 is that the doubtful variables are not ranked in the same order across different Panels. Frequently in the empirical studies, the investigators would control for the same set of variables for different proxies of the stock market development, though they recognize the dependent

variables represent different aspects of the stock market. The BMA analysis suggests that the "one-size-fit-all" specification in these cross-country analyses may be inappropriate.

In Panel A, none of the doubtful variables are robustly correlated with the dependent variable CMMKT, although TRADEOPENNESS has the highest ranking and much larger PIP than the rest ones. According to Rajan and Zingales (2003), TRADEOPENNESS reflects the political power of incumbent industrial and financial groups, which exert great influence on the formation of the financial policies, and thus determines the stock market development. The other one with relative high t-statistics is the NANALYSTS, which implies that private information disclosure is also very important.

The public enforcement strategies, STAFF (Jackson and Roe, 2008) is shown to be significantly and robustly correlated with the LISTED in Panel B. The resource-based enforcement proxy is confirmed to dominate the formal enforcement power of the public agency PENFORCEMENTLLS (La Porta *et al.*, 2006) as shown in Jackson and Roe (2008). Two proxies for information disclosure, DISCLOSURE (La Porta *et al.*, 2006) and NANALYSTS (Chang *et al.*, 2000), which are fundamental to private enforcement, do not correlate with LISTED. However, the result suffers from a caveat of reverse causality as the variable STAFF is constructed for the year 2005. In addition, another robust variable is the dummy variable CATHOLIC. It seems that Catholic countries are with relative smaller number of listed firms.

In Panel C, COMMONLO robustly correlates with the dependent variable IPO as the legal origins theory suggests. Rather than serving as the instruments for the endogenous explanatory variables, the legal origins are treated as the legal

endowment. The BMA analysis confirms the superiority of the equity finance market in common law countries in. As commented in the previous section, the dummy variables of legal origins adopted are the re-codified ones in Klerman *et al.* (2011).[21] The competing theories, for example, quality of the transplanted institutions (LATITUDE), the transplanted process (UNRECEPTIVE), the colonial legacies (EDUCATION1960), are not robustly correlated with the dependent variable.

In Panel D, the proxy for market/private information disclosure NANALYSTS (Chang *et al.*, 2000) is significantly correlated with the dependent variable STRADED. The results indicate that the information disseminated in the market is important for the market sentiment, which determines the investors' participation rate. The analysis oppose to the results in Frost *et al.* (2006), who use the stock exchanges disclosure requirements and finds that the public disclosure requirements are crucial and dominate the market disclosure force. In contrast, the BMA analysis reveals that the private information is crucial.

## 2.7 Robustness check

It is possible that the Bayesian algorithm may be biased as it is just one of the several variable selection methods. To check the robustness of the conclusion that "Anti-self-dealing index" is not significantly correlated with the three of the dependent variables except CMMKT, another variable selection algorithm stepwise backward elimination realized by Lindsey and Sheather (2010) is adopted. Table 2.4 shows the robust variables select out of the variables shown in Table 2.1, which include both the free and doubtful variables.

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[21] Klerman *et al.* (2011) classify five countries, which are in the common-law group in LLSV (1998), to mixed legal origins, which are Israel, South Africa, Sri Lanka, Thailand, Zimbabwe.

The variable selection algorithm stepwise backward elimination works as follows: It starts from a general model with all the candidate regressors. Then it eliminates regressor one by one to the point that elimination will deteriorate the information criteria. Three information criteria are employed: Adjusted R-squared, Bayesian information criterion (BIC) and Akaike information criterion (AIC). Theoretically, Adjusted R-squared and AIC will include more regressors and make the model bigger. However, even in these bigger models, ANTISDI is not included as predicted by the law and finance theory that has positive effects on stock market development.

## 2.8 Conclusion

This Chapter examines the robustness of cross-country relationship between the "on-the-book" anti-self-dealing rules and stock market outcomes considering the model uncertainty. The analysis is highly important as legal origins are no longer valid instruments for endogenous legal variables, which finds that the established positive relationship between the "Anti-self-dealing" rules and stock market development in DLLS (2008) are fragile and no longer significant. Another interesting observation from the analysis is that the enforcement strategy, especially the outcome of enforcement, is highly relevant in determining the stock liquidity. Finally, the significance and ranking of the doubtful variables are different across regressions the four dependent variables. The result indicates that the usually adopted "one-size-fit-all" specification strategy with respect to the different characteristics of stock market is inappropriate.

# Tables

## Table 2.1 Variable definitions, data sources, and descriptive statistics

The Table presents the variables, their descriptions, sources and descriptive statistics. The 48 sampled countries are Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Colombia, Denmark, Ecuador, Egypt, Finland, France, Germany, Greece, Hong Kong, India, Indonesia, Ireland, Israel, Italy, Japan, Jordan, Kenya, Malaysia, Mexico, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Peru, Philippines, Portugal, Singapore, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Turkey, U.K., U.S., Uruguay, Venezuela, and Zimbabwe.

| Num | Variable | Name | Obs | Descriptions and sources | Mean | Std. Dev. |
|---|---|---|---|---|---|---|
| | | | | Dependent Variables | | |
| 1 | cmmkt | Market capitalization to GPD | 48 | Average of stock market capitalization to GDP for the period 1999-2003. From World Development Indicators 2011. | 74.6164 | 68.528 |
| 2 | listed | Ln of Number of listed firms | 48 | Natural logarithm of the average of domestic firms listed to its population (in millions) for 1999-2003. From World Development Indicators 2011. | 23.90832 | 28.13407 |
| 3 | ipo | IPO value to GDP | 48 | Average ratio of equity issued by newly listed firms (in thousands) to GDP (in millions) over 1996-2000. From La Porta *et al* (2006), DLLS. (2008). | 2.820875 | 3.037239 |
| 4 | trade | Stock traded | 48 | Average of the total value of stocks traded as the percentage of its GDP over | 50.81341 | 57.01448 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | 1999-2003. From World Development Indicators 2011. | | |
| | | | Independent Variables (Free Variables) | | | |
| 1 | antisdi | Anti-self-dealing index | 48 | Average of *ex ante* and *ex post* private control of self-dealing. From DLLS. (2008). | 0.476 | 0.2531081 |
| 2 | check | Time to collect on a bounced check | 48 | Logarithm of the length (in calendar days) of the judicial procedure to collect on a bounced check. From DLLS. (2008). | 5.18761 | 0.710899 |
| 3 | gdppercapita[22] | Log of GDP per capita | 48 | Logarithm of GDP per capita in 2003. From World Development Indicators 2011. | 3.83306 | 0.6355589 |
| | | | Independent Variables (Doubtful Variables) | | | |
| 1 | itprosecution1999 (1996)[23] | Insider trading prosecution 1999 (1996) | 48 | Dummy variable, equals 1 if the country files any prosecution against insider trading before 1996/1999. From Bhattacharya and Daouk (2002). | 0.6458333 (0.4166667) | 0.4833211 (0.4982238) |
| 2 | rantid2003dlls | DLLS' Revised Anti-director rights | 48 | Revised Anti-director rights index for 2003. From DLLS. (2008). | 3.510417 | 1.132168 |

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[22] Though "IPO value to GDP" is averaged over period 1996 to 2000, DLLS. (2008) still use "Log of GDP per capita" in 2003 as controlling variable. To make the best comparable results, we follow their practice.

[23] Since "IPO value to GDP" is averaged over period 1996 to 2000, the author constructs the dummy variable "itprosecution1996" for year 1996 separately to accommodate the different time interval covered by the dependent variable. "itprosecution1996" is used only in regressions with dependent variable "IPO value to GDP", and its mean and variance are shown in the parentheses.

| | | index | | | | |
|---|---|---|---|---|---|---|
| 3 | onevote | One share equals one vote | 48 | Dummy variable, equals 1 if the Company Law or Commercial Code requires that ordinary shares carry one vote per share. From LLSV (1997). | 0.2291667 | 0.4247444 |
| 4 | frenchlo | French legal origin | 48 | Dummy variable, equals 1 if the country has the French legal origin. From Klerman *et al.* (2011). | 0.3958333 | 0.494204 |
| 5 | commonlo | Common legal origin | 48 | Dummy variable, equals 1 if the country has the Common law legal origin. From Klerman *et al.* (2011). | 0.2708333 | 0.4490929 |
| 6 | germanlo | German legal origin | 48 | Dummy variable, equals 1 if the country has the German legal origin. From Klerman *et al.* (2011). | 0.1041667 | 0.3087093 |
| 7 | mixedlo | Mixed legal origin | 48 | Dummy variable, equals 1 if the country has the mixed legal origin. From Klerman *et al.* (2011). | 0.1458333 | 0.356674 |
| 8 | catholic | Catholic dummy | 48 | Dummy variable, equals 1 if the country's primary religion is Catholic. From Stulz and Williamson (2003). | 0.4166667 | 0.4982238 |
| 9 | protestant | Protestant dummy | 48 | Dummy variable, equals 1 if the country's primary religion is Protestant. From Stulz and Williamson (2003). | 0.25 | 0.437595 |
| 10 | muslim | Muslim dummy | 48 | Dummy variable, equals 1 if the country's primary religion is Muslim. From Stulz and Williamson (2003). | 0.1458333 | 0.356674 |

| 11 | buddhist | Buddhist dummy | 48 | Dummy variable, equals 1 if the country's primary religion is Buddhist. From Stulz and Williamson (2003). | 0.0833333 | 0.2793102 |
| 12 | rulelaw | Rule of law | | Assessment of the law and order tradition in the country. Average between 1982 and 1995. Scale from 0 to 10, with lower scores for less tradition for law and order. From | 6.811806 | 2.645197 |
| | | | 48 | LLSV (1997). | | |
| 13 | staff[24] | Staff per million population | 48 | The 2005 size of the securities regulators' staff, divided by the country's population in millions. From Jackson and Roe (2009). | 13.6647 | 15.37414 |
| 14 | penforcementlls | Public enforcement index of LLS | 48 | Public enforcement index for year 2000. From La Porta *et al.* (2006). | 0.4976167 | 0.224029 |
| 15 | disclosure | Disclosure standards | 48 | Disclosure standards. From La Porta *et al.* (2006). | 0.5937542 | 0.2373446 |
| 16 | nanalysts[25] | Number of analysts | 48 | Number of analysts providing an annual earnings forecast per firm, averaged in each country for the year 1996. From Chang *et al.* (2000). | 11.71938 | 8.874205 |
| 17 | education1960 | Education1960 | 48 | Education in 1960. From Barro and Lee (1994) and Klerman *et al.* (2011). | 0.8952083 | 0.1696804 |

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[24] The variables have two missing observations for the Venezuela and Zimbabwe, which is filled by Stata®'s built-in predictive mean matching imputation algorithm. The algorithm is a partially parametric method that matches the missing value to the observed value with the closest predicted mean or linear prediction (Little, 1988).

[25] To maintain the largest possible sample size, we take the assumption mentioned by Chang *et al.* (2000) that if one country is not covered by IBES, there is no analyst following this country.

| 18 | lifee1960s | Life expectancy 1960s | 48 | Life expectancy in 1960s. From Barro and Lee (1994) and Klerman et al. (2011). | 60.77083 | 10.56544 |
| 19 | unreceptive | Unreceptive transplant | 48 | Dummy variable, equals 1 if a transplant neither has familiarity nor transplants with significant adaptation. From Berkowitz et al. (2003a, 2003b). | 0.5625 | 0.501328 |
| 20 | latitude | Absolute latitude | 48 | Equals Abs (latitude of capital)/90. From LLSV (1999). | 0.3478604 | 0.2074438 |
| 21 | property | Property right | 48 | Property right protection index 1997. From http://www.heritage.org. | 72.5 | 16.82197 |
| 22 | steps | Steps to start new business | 48 | The number of steps to start a new business. From Djankov et al. (2002). | 8.375 | 3.922792 |
| 23 | ethonolinguistic | Ethonolinguistic fractionalization | 48 | The average value of five different indices of ethonolinguistic fractionalization. Its value ranges from 0 to 1. From Easterly and Levine (1997), and La Porta et al. (2006) | 0.2572146 | 0.2567331 |
| 24 | tradeopenness1999 (1996)26 | Trade openness 1999 (1996) | 48 | Equals the total import and export of goods and services as the percentage of GDP in 1996/1999. From World Development Indicators 2011. | 75.64507 (72.96944) | 60.36629 (59.5433) |
| 25 | employment | Employment law index | 48 | Measures the protection of individuals by labor and employment laws. From Botero et al. (2003). | 0.4544646 | 0.1858396 |
| 26 | newspaper | Newspaper | 48 | Logarithmic of newspapers and periodicals circulation per thousand inhabitants in 2000 | 4.73839 | 1.036523 |

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[26] Since "IPO value to GDP" is averaged over period 1996 to 2000, the author constructs the dummy variable "tradeopenness1996" for year 1996 separately to accommodate the different time interval covered by the dependent variable. "tradeopenness1996" is used only in regressions with dependent variable "IPO value to GDP", and its mean and variance are shown in the parentheses.

| | | circulation | | (or closest available). From DLLS. (2008) | | |
|---|---|---|---|---|---|---|

# Table 2.2 OLS estimation of restricted models

The regressions estimated is: $Y = a + b * X$, where the vector $Y$ contains "Market capitalization to GDP", "Number of listed firms", "IPO value to GDP", or "Stock traded". X are the three free variables, "Anti-self-dealing index", "Time to collect on a bounced check", and "GDP per capita". The regressions are estimated using Ordinary Least Squares.

| Dependent variables<br>Independent variables | CMMKT | LISTED | IPO | TRADE |
|---|---|---|---|---|
| Anti-self-dealing index | 74.67896* | 49.24796*** | 3.786072** | -2.996638 |
| | (1.9) | (2.89) | (2.11) | (-0.12) |
| Time to collect on a bounced check | -22.80809** | -.2213482 | 0.399905 | -29.03414*** |
| | (-2.32) | (-0.04) | (0.72) | (-2.88) |
| GDP per capita | 35.82329*** | 17.60502 *** | 2.462884*** | 38.00484*** |
| | (2.82) | (4.38) | (4.81) | (3.63) |
| Constant | 20.07589 | -65.86654 | -10.49623** | 57.18273 |
| | (0.29) | (-1.61) | (-2.42) | (0.93) |
| Adjusted R-squared | 0.3904 | 0.4422 | 0.3965 | 0.4019 |
| Observation | 48 | 48 | 48 | 48 |

Notes: [a] The sample has 48 countries. And the model specification follows the one employed in Table 6 of DLLS. (2008).

[b] The robust t-statistics is reported in the parentheses.

[c] *, **, *** stand for 10%, 5%, and 1% significance level respectively.

# Table 2.3 Bayesian model average

The BMA specification employed in this Table is $y = \alpha + X_1\beta_1 + X_2\beta_2 + \varepsilon$, where $y$ stands for the stock market development proxies, "Market capitalization to GDP", "Number of listed firms", "IPO value to GDP", or "Stock traded", and $\alpha$ is the intercept, $\varepsilon$ the error term. $X_1$ contains the four free variables, "Anti-self-dealing index", "Time to collect on a bounced check", "GDP per capita", and "Insider trading prosecution", and $X_2$ the rest 27 doubtful variables. The "t-stat" is the BMA t-statistics, and "pip" is the posterior inclusion probability, according to which the doubtful variables are ranked.

| Panel A | | | | Panel B | | | | Panel C | | | | Panel D | | | |
| Dependent Variable: Market capitalization to GDP | | | | Dependent Variable: Number of listed firms | | | | Dependent Variable: IPO value to GDP | | | | Dependent Variable: Stock traded | | | |
| free variables | coefficient | t-stat | pip | free variables | coefficient | t-stat | pip | free variables | coefficient | t-stat | pip | free variables | coefficient | t-stat | pip |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| constant | -22.04069 | -0.18 | 1 | constant | -88.43204* | -2.03 | 1 | constant | -14.25501* | -2.63 | 1 | constant | 15.40098 | 0.16 | 1 |
| antisd | 47.51837* | 1.06 | 1 | antisd | 6.987161 | 0.36 | 1 | antisd | 0.6696886 | 0.3 | 1 | antisd | -23.71198 | -0.6 | 1 |
| check | -16.37798* | -1.15 | 1 | check | 5.836915* | 1.2 | 1 | check | 0.7498757* | 1.26 | 1 | check | -17.31855* | -1.51 | 1 |
| gdppercapita | 35.40558* | 1.45 | 1 | gdppercapita | 15.35567* | 2.01 | 1 | gdppercapita | 2.897989* | 2.94 | 1 | gdppercapita | 26.04813* | 1.21 | 1 |
| doubtful variables | coefficient | t-stat | pip | doubtful variables | coefficient | t-stat | pip | doubtful variables | coefficient | t-stat | pip | doubtful variables | coefficient | t-stat | pip |
| tradeopenness1999 | 0.1146631 | 0.61 | 0.32 | staff | 1.04045* | 3.97 | 0.98 | commonlo | 1.936557 | 1.26* | 0.69 | nanalysts | 2.10583* | 1.3 | 0.7 |
| nanalysts | 0.588431 | 0.48 | 0.23 | catholic | -12.19825* | -1.24 | 0.69 | disclosure | 1.357654 | 0.57 | 0.3 | disclosure | 27.52645 | 0.58 | 0.3 |
| staff | 0.1888141 | 0.37 | 0.16 | rantid2003dlls | 3.50307 | 0.81 | 0.46 | unreceptive | 0.2917559 | 0.38 | 0.16 | unreceptive | 3.360623 | 0.29 | 0.11 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| disclosure | 11.90785 | 0.34 | 0.14 | mixedlo | 2.313694 | 0.37 | 0.16 | catholic | -0.1455378 | -0.3 | 0.12 | frenchlo | -2.158561 | -0.26 | 0.1 |
| ethonolinguistic | 10.16932 | 0.32 | 0.13 | frenchlo | -1.448568 | -0.31 | 0.13 | nanalysts | 0.008751 | 0.28 | 0.11 | itprosecution1999 | 2.007948 | 0.24 | 0.09 |
| buddhist | -4.512173 | -0.27 | 0.1 | penforcementlls | 2.662321 | 0.29 | 0.12 | staff | 0.0034295 | 0.23 | 0.09 | steps | -0.251564 | -0.25 | 0.09 |
| unreceptive | 1.898548 | 0.19 | 0.07 | protestant | -1.137637 | -0.26 | 0.11 | penforcementlls | 0.1877507 | 0.22 | 0.08 | catholic | -1.547994 | -0.22 | 0.08 |
| itprosecution1999 | 0.9443972 | 0.15 | 0.06 | buddhist | -1.489662 | -0.27 | 0.1 | tradeopenness1996 | 0.000657 | 0.22 | 0.08 | education1960 | -5.360982 | -0.22 | 0.08 |
| frenchlo | -1.154244 | -0.17 | 0.06 | disclosure | 1.774544 | 0.24 | 0.09 | mixedlo | -0.0763027 | -0.15 | 0.07 | commonlo | 1.497174 | 0.2 | 0.07 |
| mixedlo | 1.23288 | 0.15 | 0.06 | itprosecution1999 | 0.6124258 | 0.21 | 0.08 | buddhist | -0.081936 | -0.17 | 0.06 | buddhist | -1.933187 | -0.2 | 0.07 |
| steps | -0.146909 | -0.17 | 0.06 | tradeopenness1999 | 0.006995 | 0.21 | 0.08 | education1960 | 0.137286 | 0.12 | 0.06 | penforcementlls | 2.44377 | 0.19 | 0.07 |
| protestant | -0.573443 | -0.1 | 0.05 | education1960 | -2.008833 | -0.18 | 0.07 | rantid2003dlls | 0.0171399 | 0.14 | 0.05 | ethonolinguistic | 2.72993 | 0.19 | 0.07 |
| employment | -1.368267 | -0.1 | 0.05 | nanalysts | -0.019458 | -0.14 | 0.06 | frenchlo | -0.0240038 | -0.09 | 0.05 | protestant | 0.9652846 | 0.18 | 0.06 |
| newspaper | -0.607065 | -0.14 | 0.05 | latitude | -1.22737 | -0.17 | 0.06 | muslim | 0.036282 | 0.12 | 0.05 | tradeopenness1999 | -0.0063675 | -0.15 | 0.06 |
| rantid2003dlls | 0.0660745 | 0.03 | 0.04 | property | -0.013451 | -0.16 | 0.06 | lifee1960s | -0.002609 | -0.11 | 0.05 | germanlo | 0.7874785 | 0.13 | 0.05 |
| onevote | -0.243888 | -0.06 | 0.04 | ethonolinguistic | 0.8004598 | 0.17 | 0.06 | steps | -0.0033929 | -0.11 | 0.05 | mixedlo | -0.1745659 | -0.03 | 0.05 |
| commonlo | 0.2353943 | 0.04 | 0.04 | onevote | -0.261007 | -0.15 | 0.05 | ethonolinguistic | 0.0555477 | 0.11 | 0.05 | staff | 0.0119343 | 0.09 | 0.05 |
| germanlo | 0.1360662 | 0.02 | 0.04 | muslim | -0.115045 | -0.05 | 0.05 | itprosecution1996 | 0.0092042 | 0.05 | 0.04 | lifee1960s | -0.0614734 | -0.14 | 0.05 |
| catholic | -0.361680 | -0.08 | 0.04 | rulelaw | -0.057106 | -0.12 | 0.05 | onevote | 0.0084434 | 0.05 | 0.04 | latitude | 1.763799 | 0.13 | 0.05 |
| muslim | -0.078358 | -0.02 | 0.04 | steps | -0.024694 | -0.1 | 0.05 | germanlo | 0.0148165 | 0.06 | 0.04 | newspaper | 0.3036959 | 0.11 | 0.05 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| rulelaw | 0.0895621 | 0.07 | 0.04 | newspaper | -0.149763 | -0.12 | 0.05 | protestant | 0.0072657 | 0.04 | 0.04 | rantid2003dlls | 0.053371 | 0.03 | 0.04 |
| education1960 | -0.328210 | -0.02 | 0.04 | commonlo | -0.087208 | -0.05 | 0.04 | rulelaw | 0.0009054 | 0.01 | 0.04 | onevote | -0.2147583 | -0.06 | 0.04 |
| lifee1960s | -0.051093 | -0.1 | 0.04 | germanlo | -0.074126 | -0.04 | 0.04 | latitude | 0.0477634 | 0.07 | 0.04 | muslim | -0.2090408 | -0.05 | 0.04 |
| latitude | 0.0224759 | 0 | 0.04 | lifee1960s | 0.0075086 | 0.06 | 0.04 | property | 0.000316 | 0.04 | 0.04 | rulelaw | -0.0371693 | -0.04 | 0.04 |
| property | -0.002950 | -0.02 | 0.04 | unreceptive | 0.1544736 | 0.08 | 0.04 | employment | -0.02406 | -0.04 | 0.04 | property | 0.013416 | 0.09 | 0.04 |

Notes: [a] The sample has 48 countries.

[b] The variable ANTISD, CHECK, GDPPERCAPITA and the intercept are fixed in the model specification.

c * stands for "t-statistics" is larger than 1 in absolute value.

# Table 2.4 Robustness check

| Panel A | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Dependent Variable: Market capitalization to GDP | | | | | | | | |
| Adjusted R$^2$ | | | BIC | | | AIC | | |
| variables | coefficient | t-stat | variables | coefficient | t-stat | variables | coefficient | t-stat |
| constant | 59.41471 | 1.11 | constant | -33.7347* | -1.71 | constant | 21.16889 | 0.53 |
| commonlo | -59.9105** | -2.36 | buddhist | -55.8888* | -2.01 | commonlo | -42.4113* | -1.85 |
| catholic | -52.1069** | -2.05 | disclosure | 79.89962** | 2.23 | catholic | -47.3812* | -1.89 |
| protestant | -36.609 | -1.33 | nanalysts | 2.686142*** | 3.04 | protestant | -36.022 | -1.3 |
| muslim | -39.954 | -1.45 | tradeopenness1999 | 0.450629*** | 3.41 | muslim | -43.3275 | -1.58 |
| buddhist | -105.144*** | -3.27 | | | | buddhist | -106.558*** | -3.29 |
| rulelaw | 9.195305* | 1.83 | | | | rulelaw | 6.279413 | 1.64 |
| staff | 1.116014 | 1.47 | | | | disclosure | 85.46097* | 1.97 |
| disclosure | 98.30448** | 2.25 | | | | nanalysts | 2.212807* | 1.94 |
| nanalysts | 2.204876* | 1.95 | | | | tradeopenness1999 | 0.45314*** | 3.27 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| tradeopenness1999 | 0.297112 | 1.66 | | | | employment | -98.682* | -1.96 |
| employment | -93.8719* | -1.84 | | | | | | |
| newspaper | -13.7239 | -1.2 | | | | | | |
| Adjust $R^2$ | 0.5683 | | Adjust $R^2$ | 0.4977 | | Adjust $R^2$ | 0.5604 | |
| | | | | Panel B | | | | |
| | | | Dependent Variable: Number of listed firms | | | | | |
| Adjusted $R^2$ | | | BIC | | | AIC | | |
| variables | coefficient | t-stat | variables | coefficient | t-stat | variables | coefficient | t-stat |
| constant | -52.6161** | -2.13 | constant | -99.7535*** | -5.67 | constant | -52.6161** | -2.13 |
| itprosecution1999 | 11.40569* | 1.99 | rantid2003dlls | 8.915743 | 4.18 | itprosecution1999 | 11.40569* | 1.99 |
| rantid2003dlls | 8.728089*** | 4.2 | commonlo | -31.2495 | -3.96 | rantid2003dlls | 8.728089*** | 4.2 |
| commonlo | -24.6719*** | -2.9 | catholic | -21.5114 | -3.78 | commonlo | -24.6719*** | -2.9 |
| germanlo | 14.96768** | 2.22 | protestant | -13.9758 | -2.28 | germanlo | 14.96768** | 2.22 |
| mixedlo | 16.55024* | 1.77 | buddhist | -46.2469 | -5.02 | mixedlo | 16.55024* | 1.77 |
| catholic | -20.9389*** | -2.89 | rulelaw | 3.131044 | 2.14 | catholic | -20.9389*** | -2.89 |
| protestant | -17.0137** | -2.43 | staff | 1.191637 | 7.25 | protestant | -17.0137** | -2.43 |
| muslim | -10.5038 | -1.32 | disclosure | 49.51001 | 3.75 | muslim | -10.5038 | -1.32 |

| buddhist | -56.0862*** | -6.01 | nanalysts | -0.97982 | -3.08 | buddhist | -56.0862*** | -6.01 |
|---|---|---|---|---|---|---|---|---|
| rulelaw | 4.611868*** | 3.05 | education1960 | -71.4729 | -3.06 | rulelaw | 4.611868*** | 3.05 |
| staff | 1.337108*** | 7.9 | lifee1960s | 2.451915 | 5.34 | staff | 1.337108*** | 7.9 |
| disclosure | 42.06503*** | 2.89 | latitude | -67.2939 | -3.87 | disclosure | 42.06503*** | 2.89 |
| nanalysts | -1.1556*** | -3.39 | | | | nanalysts | -1.1556*** | -3.39 |
| education1960 | -99.8255*** | -4.18 | | | | education1960 | -99.8255*** | -4.18 |
| lifee1960s | 2.313538*** | 4.94 | | | | lifee1960s | 2.313538*** | 4.94 |
| latitude | -67.064*** | -3.97 | | | | latitude | -67.064*** | -3.97 |
| ethnolinguistic | -17.7994 | -1.58 | | | | ethnolinguistic | -17.7994 | -1.58 |
| newspaper | -5.0717 | -1.47 | | | | newspaper | -5.0717 | -1.47 |
| Adjust $R^2$ | 0.8417 | | Adjust $R^2$ | 0.8159 | | Adjust $R^2$ | 0.8417 | |

Panel C

Dependent Variable: IPO value to GDP

| Adjusted $R^2$ | | | BIC | | | AIC | | |
|---|---|---|---|---|---|---|---|---|
| variables | coefficient | t-stat | variables | coefficient | t-stat | variables | coefficient | t-stat |
| constant | -24.3101*** | -5.24 | constant | -20.1848*** | -4.72 | constant | -24.31009*** | -5.24 |
| antisdi | -3.52686* | -1.8 | check | 1.709457*** | 3.12 | antisdi | -3.52686* | -1.8 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| check | 2.082582*** | 3.86 | frenchlo | 3.272567*** | 3.11 | check | 2.082582*** | 3.86 |
| itprosecution1999 | 1.619699* | 2 | commonlo | 4.204305*** | 4.56 | itprosecution1999 | 1.619699* | 2 |
| frenchlo | 3.141777** | 2.64 | germanlo | 2.79923** | 2.47 | frenchlo | 3.141777** | 2.64 |
| commonlo | 4.106025*** | 3.75 | catholic | -2.478*** | -2.82 | commonlo | 4.106025*** | 3.75 |
| germanlo | 2.646634** | 2.38 | disclosure | 4.164101** | 2.35 | germanlo | 2.646634** | 2.38 |
| catholic | -1.7207 | -1.66 | education1960 | 7.70932*** | 3.37 | catholic | -1.7207 | -1.66 |
| protestant | 1.563097 | 1.46 | latitude | 5.575062*** | 3.32 | protestant | 1.563097 | 1.46 |
| buddhist | -1.841 | -1.46 | tradeopenness1999 | 0.014955** | 2.47 | buddhist | -1.841*** | -1.46 |
| disclosure | 5.906486*** | 2.8 | | | | disclosure | 5.906486*** | 2.8 |
| education1960 | 8.496303*** | 3.23 | | | | education1960 | 8.496303*** | 3.23 |
| unreceptive | 1.98643* | 2 | | | | unreceptive | 1.98643* | 2 |
| latitude | 7.028197*** | 3.06 | | | | latitude | 7.028197*** | 3.06 |
| tradeopenness1999 | 0.021763*** | 3.08 | | | | tradeopenness1999 | 0.021763*** | 3.08 |
| employment | -3.3294 | -1.4 | | | | employment | -3.3294 | -1.4 |
| Adjust $R^2$ | 0.6416 | | Adjust $R^2$ | 0.5762 | | Adjust $R^2$ | 0.6416 | |
| Panel D | | | | | | | | |
| Dependent Variable: Stock traded | | | | | | | | |

| Adjusted $R^2$ | | | BIC | | | AIC | | |
|---|---|---|---|---|---|---|---|---|
| variables | coefficient | t-stat | variables | coefficient | t-stat | variables | coefficient | t-stat |
| constant | -22.3137 | -0.24 | constant | -188.496** | -2.69 | constant | -22.8643 | -0.24 |
| check | -18.8161* | -1.98 | germanlo | 41.00248** | 2.05 | check | -17.6743* | -1.86 |
| itprosecution1999 | 25.07133 | 1.62 | buddhist | -52.9213** | -2.24 | itprosecution1999 | 22.36984 | 1.46 |
| rantid2003dlls | -11.2484* | -1.71 | disclosure | 97.51184*** | 3.21 | rantid2003dlls | -11.8733* | -1.8 |
| germanlo | 48.97889** | 2.58 | nanalysts | 2.742327*** | 3.1 | germanlo | 47.02773** | 2.47 |
| Buddhist | -50.6591** | -2.16 | lifee1960s | 2.100479** | 2.2 | buddhist | -50.4366** | -2.14 |
| disclosure | 90.40719** | 2.67 | unreceptive | 38.6921** | 2.05 | disclosure | 93.6075*** | 2.76 |
| nanalysts | 2.077311** | 2.05 | | | | nanalysts | 2.218267** | 2.2 |
| education1960 | -59.4014 | -1.15 | | | | lifee1960s | 2.043627** | 2.17 |
| lifee1960s | 2.918097** | 2.42 | | | | unreceptive | 64.19493*** | 3.23 |
| unreceptive | 67.03828*** | 3.36 | | | | steps | -4.31911** | -2.22 |
| steps | -4.02736** | -2.06 | | | | tradeopenness1999 | -0.18249 | -1.6 |
| tradeopenness1999 | -0.172 | -1.51 | | | | | | |
| Adjust $R^2$ | 0.6078 | | Adjust $R^2$ | 0.5404 | | Adjust $R^2$ | 0.6041 | |

Notes: [a] The sample has 48 countries.

[b] No variables are fixed in the model specification.

[c] *, **, *** stand for 10%, 5%, and 1% significance level respectively.

# 3 Minority shareholder protection, underpricing, and the decision to issue external equity

## 3.1 Introduction

This Chapter focuses on the effects of legal protection of minority shareholders in public corporations on firms' equity financing decisions (initial public offering and seasoned equity offering).[27] Following the seminar work "Law and Finance" by LLSV, the academics have formed the view that shareholder protection has positive effects on various stock market outcomes. The documented cross-country evidence shows that better shareholder protection is associated with higher percentage of long-term finance (Demirgüç-Kunt and Maksimovic, 1998), higher proportion of external finance and more dispersed ownership structure (LLSV, 1997, 1998), higher valuation of firm (LLSV, 2002), larger market capitalization and number of listed firms (Pagano and Volpin, 2006; DLLS., 2008), and greater market liquidity (Cumming *et al.*, 2011), and more efficient resource allocation (Mclean *et al.* 2012).[28]

Shleifer and Wolfenzon (2002, henceforth SW) provide an influential general equilibrium theory resting on the intuition that better legal protection of the minority shareholders imposes larger costs on tunneling activities and hence reduces the costs of external finance. SW incorporate the "crime and punishment" strategy (Becker, 1968) into the framework of agency problem between majority shareholder and minority shareholder in corporate finance (Jensen and Meckling, 1976), and argue

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[27] The literature seems to assume homogenous effects of different legal institutions on stock market outcomes. One of the most influential index "Anti-director rights index" by LLSV (1998) is shown to be positively correlated with multiple stock market outcomes in cross sectional studies. However, recent researches have already began to notice that the agency problems in different countries are heterogeneous, see Martynova and Renneboog (2011). For the remainder of the Chapter, we refer interchangeably to "minority shareholders" and "investors".

[28] See two survey articles La Porta *et al.* (2008) and Xu (2011). And several empirical studies complements to this literature that the protection of minority shareholders is effective only if they are enforced, see Bhattacharya and Daouk. (2002) for an analysis of insider trading rules, and Linciano (2003) for an event study of Italy.

that with better investor protection, more firms go public, more funds are raised and also channeled to higher-productivity projects. This crime and punishment framework is also applied by LLSV. (2002) and Durnev and Kim (2005) in discussing the corporate valuation and corporate governance.

However, the empirical proposition of "law matters" has been challenged ever since it comes out as an explanation for the anomaly that U.K. and U.S. have dispersed ownership structure (Shleifer and Vishny, 1997). Both business histories of U.K. and U.S. suggest that the shares of listed firms have become diffused long before relevant legal institutions are established (Cheffins, 2001; Coffee, 2001). Data on American firms suggest that though they do not have controlling shareholders, but the percentage of firms having block shareholders is similar to that of other countries (Holderness, 2009). And for British listed firms, the dispersed ownership was already prevalent at the beginning of the 20th century, which is driven mainly by mergers (Franks *et al.*, 2009). Furthermore, the workhorse of these empirical researches, cross sectional regressions with legal origins as instrumental variables, is rejected since it fails to satisfy the exclusion restrictions (La Port *et al.*, 2008; Bazzi and Clemens, 2009). Thirdly, the methodology of constructing the indices is questioned, and recoding of the index or newly constructed index fails to find significant results (Spamann, 2010; Armour *et al.*, 2009).

Finally, shareholder's interests are not homogenous and conflicts of interests exist especially between controlling shareholders and minority shareholders. It is unrealistic to assume that the interests of minority shareholders are in alignment with those of the shareholder groups. Anabtawi (2005) suggests that minority shareholders will use their disproportionate influence, if they have, to seek rent and pursue their private benefits rather than maximize the interests of the firm. Belloc (2013), basing on the "team production" theory of Blair and Stout (1999), finds that minority shareholders conferred with strong control power tend to discourage firms' innovative activities, which requires specific sunk investment with little salvage value. The

incentives for the minority shareholders to hold up after the commencing of the projects induce the suboptimal level of majority shareholders' investment.

Hence, the empirical foundation of the theory that law matters for stock market development is at least doubtful, which is shown in the previous Chapter. Following this spirit, this Chapter considers a subset of narrower stock market development outcomes, the IPOs and SEOs markets, and focuses on the effects of corporate governance rules regarding the division of power between corporate insiders and minority shareholders on these outcomes. Firm-level empirical studies suggest that newly listed firms have concentrated ownership regardless of the level of investor protection (Foley and Greenwood, 2010), and hence in a fair long period after IPO the major agency problem will be that between controlling shareholders and minority shareholders, rather than that between directors and shareholders group. Over-empowered minority shareholders may reduce controller's private benefits to a level below the efficient one, which fails to compensate for controller's costs of creating and implementing projects and monitoring managers, and some *ex ante* efficient firms with positive NPV projects may not be formed.

The theoretical part introduces private costs to controllers in addition to the costs of external equity. For example, according to Ritter (1987), the costs of underpricing and underwriting takes approximately 30 percent of the total raised funding. Of course, only the underpricing costs are endogenous to the power of minority shareholders and will influence the marginal firms' decision to undertake IPO. The benefits come from the net present value (NPV) brought about by the new project.

Financial studies on the underpricing are proliferative.[29] The most relevant theory rests on the agency problem analyzed by Jensen and Meckling (1976). The controllers underprice the shares to maintain their control and avoid monitoring by large block

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[29] See Jenkinson and Ljungqvist (2001) for an excellent discussion on the literature of underpricing.

shareholders (Brennan and Franks, 1997). By underpricing, the issuer ensures that shares are oversubscribed, and rations the shares to dispersed investors to prevent formation of large block shareholders. When investors are conferred with greater power to challenge and monitor controller's decisions, controllers will underprice the "asset in place" more to induce excess demand, which results in greater ownership dispersion. This is the major assumption involved in this study.

Furthermore, the minority shareholder protection is assumed to be homogenous across different firms and determined exogenously by public rules. The literature shows that firms may actively bind themselves with better governance practices than the minimum legal requirements, for example, through drafting binding covenants in corporate charter (Klapper and Love, 2004). And the high quality governance rules indeed increase firms' valuation, as shown in Gompers *et al.* (2003), who construct a "Governance Index" incorporating 24 components proxy for the shareholder rights against management.[30] However, the strategy is justified from two perspectives. First, Bebchuk (2002) points out that listed firms lack incentives to write optimal charter provisions, and proposes that when considering the asymmetric information, the firms will offer inefficient IPO corporate charters, and the mandatory protections of investors are important. Second, Doidge *et al.* (2007) carry out a cross-country empirical analysis and find that country-specific characteristics account for more than two thirds of variance in governance rating, indicating the importance of macro institutions. The reason that country-level characteristics matter so much lies in its influence on the costs and benefits that firms incur to bond themselves to good governance. To convince investors that firms perform high-quality governance system and hence reduce the costs of external finance, they have to credibly commit themselves to such governance arrangement, which is expensive in countries with

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[30] Bebchuk *et al.* (2009) show that six of the twenty-four components have already accounted for most of the explanatory power of "Governance Index", and propose an "Entrenchment Index" including six components: "staggered boards", "limits to shareholder bylaw amendments", "poison pills", "golden parachutes", and "supermajority requirements for mergers and charter amendments".

poor investor protection. For example, the audit system could be too weak to check the quality of disclosure of listed firms.

The comparative statics analysis indicates that the controller's post-IPO wealth negatively correlates with the level of investor protection. Hence, the controllers of the marginal firms intending to undertake IPO could decide to stay private when minority shareholder protection improves, because they are worse off undertaking the IPO. In contrast, two factors, the preemptive rights and dispersed ownership of listed firms, distinguish seasoned offerings from IPOs, which should still have positive relationship with minority shareholder protection. As a result, the dynamic effects of minority shareholder protection on marginal firms' issuance decisions are not monotonous.

To empirically test these predictions, this paper employs two stock market outcomes, the number of listed firms and stock market capitalization, as the dependent variables. In addition, a newly assembled index for protection of minority shareholders in listed companies in 25 countries for 11 years is used as the independent variable of interest (Armour *et al.*, 2009). The author adopts the GMM-sys estimator, which exploits the internal generated instruments, to control for endogeneity. The outputs show that estimates dealing with fixed and dynamic effects, contradict with those using standard OLS technique. The over-optimistic cross sectional empirical results are probably due to the omitted variable bias. The empirical outputs confirm the negative correlation between minority shareholder protection and number of listed firms, which is due to the reduced number of new entrants to the stock market. Nevertheless, it still positively correlates with the market capitalization, which indicates that costs of underpricing are insignificant to the controllers of listed firms, and seasoned offering is facilitated by improved minority shareholder protection.

The rest of this Chapter is arranged as follows: Section 3.2 discusses and extends the law and finance theories on the IPO markets, and Section 3.3 proposes the model,

which conducts a comparative static analysis on firms' decision to undertake IPO under different level of minority shareholder protection. Section 3.4 briefly introduces the dataset. Section 3.5 presents the empirical outputs using GMM-sys estimator. And Section 3.6 concludes.

## 3.2 Complicating the law and finance theories of IPO market

Previous cross-country empirical studies often overlook variances along the time dimension. A leading work argues that the within variance is important to understanding stock market development is Rajan and Zingales (2003), who point out that legal origins could not accommodate the changes in the relative development of the stock market during the 20th century. In addition, Franks *et al.* (2009) exploit the variation of "Anti-director rights index" along time in U.K., and find that ownership of British firms does not become more dispersed when shareholder protection is improved. This section analyzes the long-term variation of IPO markets in U.K. and U.S., and argues that the empirical positive relationship between IPO markets and minority shareholder protection is untenable.

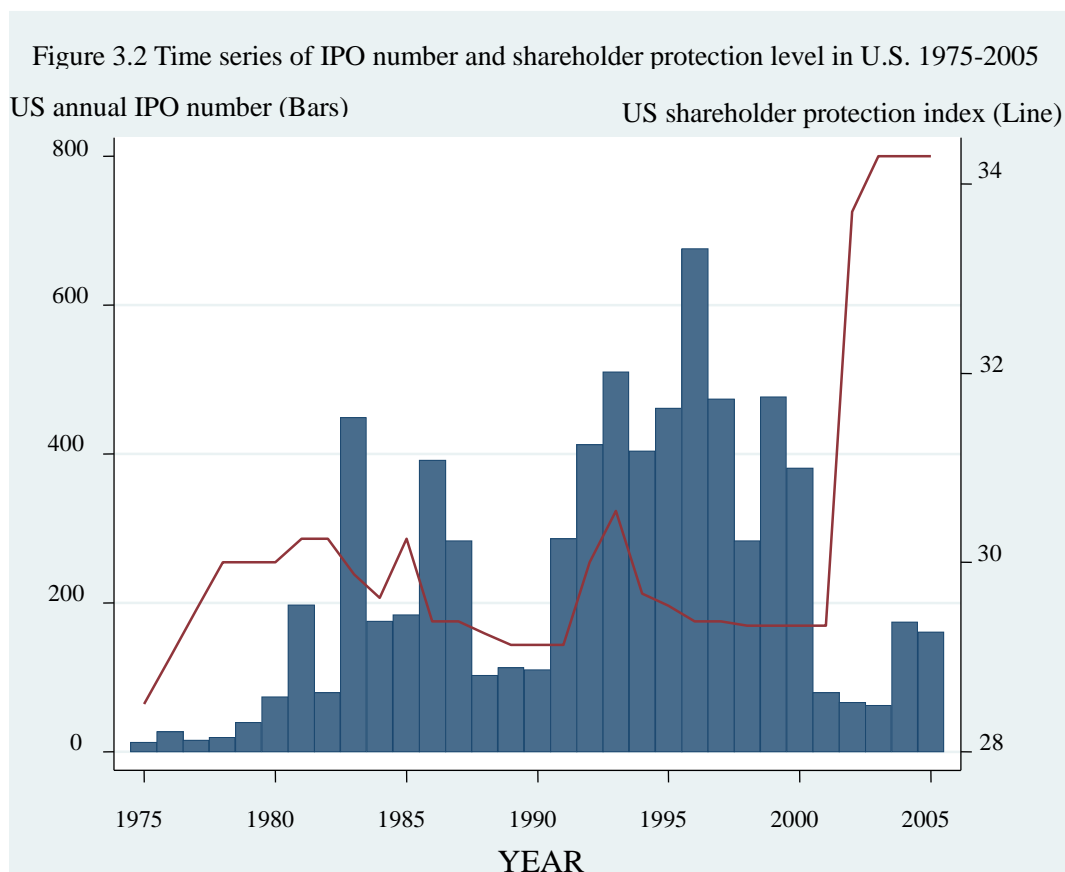## 3.2.1 Case studies: IPO markets in United Kingdom and United States

Figure 3.1 and Figure 3.2, which present the shareholder protection level and annual IPO number in U.K. and U.S. respectively from 1975 to 2005, illustrate the concern that the missing within-country variance may greatly bias our understanding of the relationship between IPO number and shareholder protection. For example, in Figure 3.1, the level of shareholder protection in U.K. is improving, but in contrast, the number of firms undertaking IPO on the market is changing drastically. In addition, there is hot market in the period between 1996 and 2000 with average 109 annual IPOs, and cold market between 1989 and 1993 with average 27 annual IPOs. Similar phenomena could also be observed in U.S. as is shown in Figure 3.2 that there are 113

annual IPOs between 1984 and 1988 on average, and only 17 annual IPOs between 1989 and 1992. In the beginning of 20$^{th}$ century when Enron scandal is revealed, the American legislature passed the Sarbanes–Oxley Act, which greatly improves the protection to investors. The act was enacted on 30$^{th}$ July, 2002, which did not bring about immediate increase in the number of firms trying to list on the market. The number recovers to about half the level before the crisis until 2004.

Figure 3.1 Time series of IPO number and shareholder protection level in U.K. 1975-2005
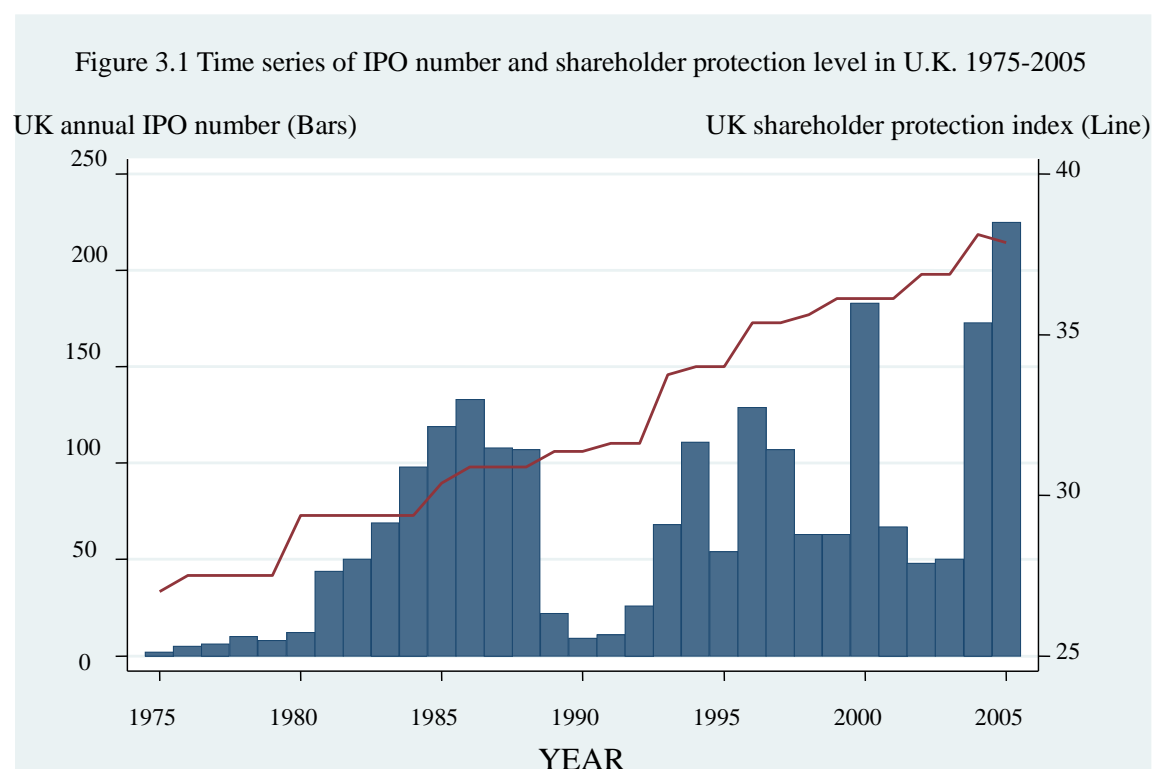


Data on the annual number of IPOs were drawn from Chambers and Dimson (2009, IPO Underpricing over the Very Long Run. *Journal of Finance 64*(3): 1407-1443), and data on shareholder protection index were provided by Professor Deakin (http://www.cbr.cam.ac.U.K./research/projects/project2-20output.htm). The IPO number excludes introductions, closed-end funds (known in the U.K. as investment trusts), transfers from a junior market, and by firms already quoted on another exchange, "penny" stock IPOs, defined as those with an offer price of two shillings or less (10 pence or less after decimalization in 1972), and government privatizations, which there were relatively few, mainly in the 1980s. The "shareholder protection index" is comprised of 60 sub-variables, of which 42 measure the shareholder protection against directors and senior management and 18 measure the protection against other controlling shareholders.

Figure 3.2 Time series of IPO number and shareholder protection level in U.S. 1975-2005

US annual IPO number (Bars)                    US shareholder protection index (Line)



Data on the annual number of IPOs were provided by Professor Ritter (http://bear.warrington.ufl.edu/ritter/IPOs2012Statistics.pdf), and data on shareholder protection index were provided by Professor Deakin (http://www.cbr.cam.ac.U.K./research/projects/project2-20output.htm). IPO number excludes those with an offer price smaller than $5.00, excluding ADRs, unit offers, closed-end funds, REITs, partnerships, small best efforts offers, banks and S&Ls, and stocks not listed on CRSP (CRSP includes Amex, NYSE, and NASDAQ stocks). The "shareholder protection index" is comprised of 60 sub-variables, of which 42 measure the shareholder protection against directors and senior management and 18 measure the protection against other controlling shareholders.

The volatility of IPO number over time raises several questions about studies relying only on the cross-sectional variations. First, the straightforward intuition that more firms will go public when equity financing becomes cheaper due to improved shareholder protection is elusive. Second, for cross sectional analysis, the "window" picked to measure the IPO number is crucial. For example, LLSV (1997) employ the IPO number of a sample of countries between July 1995 and June 1996, and La Port *et al.* (2006) and DLLS (2008) employ the average number over 1996 to 2000, all of which from are in a period of hot market for U.S. and U.K..

Third, there must be omitted variables bias for cross sectional studies as the IPO number changes so volatile and follow a different pattern from that of the shareholder protection. Usually the cross sectional analysis will control for GDP growth rate, or other legal institutions such as disclosure standards or enforcement intensity, the common variables examined extensively in the financial literature on determinants of IPO volume, such as market sentiment, is not controlled. As a result, the rest of this section investigates both the supply and demand side of the equity financing market, and complicates the law and finance theory on the determinants of IPO market development.

## 3.2.2 A united theories of market participants' response to variations in shareholder protection

It is implicitly assumed in most law and finance theoretical studies that once equity becomes cheaper due to better minority shareholder protection, *ceteris paribus*, firms will consume more equity finance.[31] Actually, the way of thinking assigns a passive role to firms in deciding whether to take the external finance. However, the two figures presented before show that this may not be the case as minority shareholder power is not the only factor influencing firms' IPO decisions.

Two theories on firms' financial choices suggest that they actively choose whether to issue external equity. The first one comes from Myers and Majluf (1984) and Myers (1984), who consider the asymmetric information between firms and investors about "asset in place", and argues that equity finance signals to the market that the firm is of low quality. Hence, firms may follow the pecking order to employ more information-insensitive sources of finance, such as retained earnings, even if equity

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[31]  For example, LLSV (2002: 1147) argue that "by limiting expropriation, the law raises the price that securities fetch in the marketplace. In turn, this enables more entrepreneurs to finance their investments externally, leading to the expansion of financial markets".

finance becomes cheaper. As a result, firms may stick to debt financing when costs of adverse selection are huge.

Second, Baker and Wurgler (2002) provide evidence that firms' capital structure is determined by past attempts to time the market. By timing the market, they mean that issuers sell the shares when their valuation is high and buyback when their valuation is low. In their view, the leverage ratio results from these cumulative choices for both IPO and seasoned offering. The issuer's intent to time the market during IPO is documented in the literature. Rajan and Servaes (1995) find that for American companies undertaking IPO, the average market to book ratio of the same industry is 8 percent higher than the average over the surrounding 5 years and 18 percent higher than the average for all public firms. Pagano, Panetta and Zingales (1998) find that the industrial market to book ratio significantly explains the reason why Italian firms undertake IPO. Hence the next two subsections consider both the supply and demand side of the equity financing market respectively.

### 3.2.2.1 The demand side of equity market

By demand side of equity market, this paper means the investors, who buy the securities, *i.e.* the shares, and provide finance to issuers. A possible channel through which investor protection encourage investors to participate is that it is positively correlated with the market sentiment. Shleifer and Summers (1990) emphasize the role of "noise traders", who are uninformed and chase the trend of stock market. Lowry (2003) conducts a time series analysis of the IPO market in U.S. and finds that market sentiment significantly explains the IPO volume, which is also negatively correlated with both raw IPO post-issue returns and post-issue market return, hinting that investors buy shares at a relative high level. Then, if increased (decreased) investor protection could ignite an over- optimal (pessimistic) sentiment, it is possible that the number of IPO will positively correlated with the level of investor protection.

To shed light on whether market participants become optimistic once the legal power conferred upon them increases, the author gathers the U.S. market sentiment data, which is shown in Figure 3.3 together with the shareholder protection level.

Figure 3.3 Time series of investor sentiment and shareholder protection level in U.S. 1975-2005

US investor sentiment index (Bars)                    US shareholder protection index (Line)
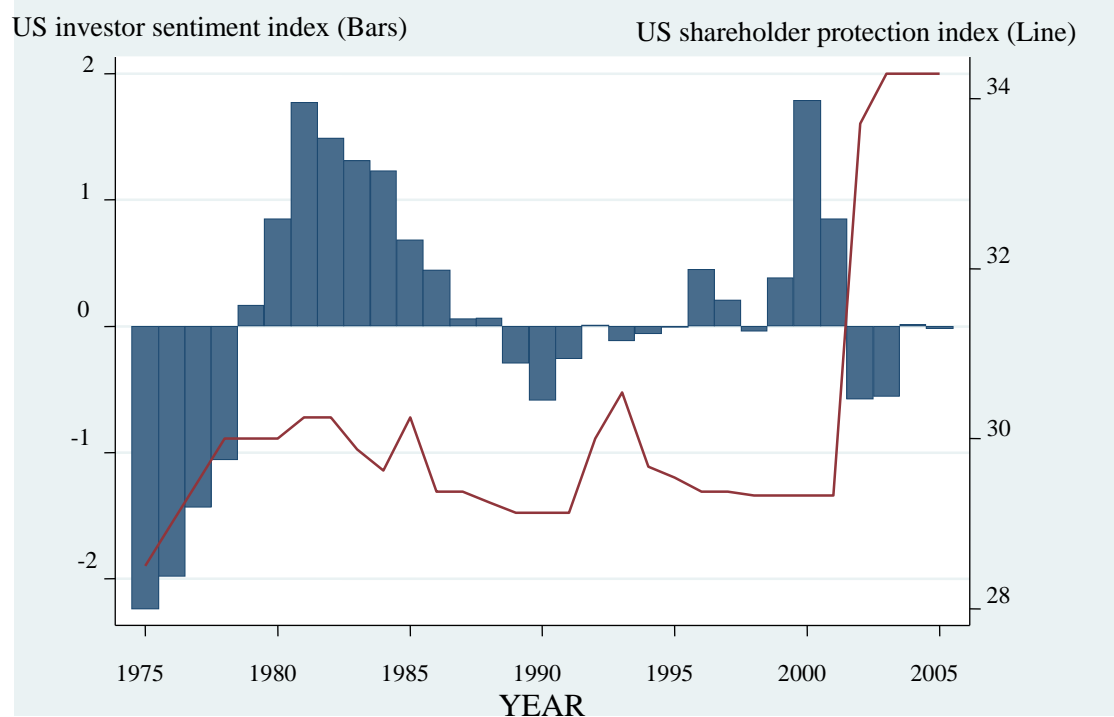


Data on the investor sentiment were provided by Professor Wurgler (http://people.stern.nyu.edu/jwurgler/), and data on shareholder protection index were provided by Professor Deakin (http://www.cbr.cam.ac.U.K./research/projects/project2-20output.htm). The sentiment index is the principal component of six factors: "Value-weighted dividend premium", "IPO volume", "First-day returns on IPOs", "Closed-end fund discount", "Equity share in new issues and NYSE turnover", all of which are transformed to be orthogonal to macro outcomes (Baker and Wurgler, 2006). The "shareholder protection index" is comprised of 60 sub-variables, of which 42 measure the shareholder protection against directors and senior management and 18 measure the protection against other controlling shareholders.

In Figure 3.3, it is observed that before 1990s the shareholder protection and investor sentiment co-move together, hinting that legal institutions could influence the investors sentiment. However, the relationship is not so obvious after 1990s, especially between 2000 and 2005, when the corporate governance scandals in U.S.

broke out. Though the legislature enacted the Sarbanes–Oxley Act on July 30, 2002, the investor sentiment is not recovered immediately.

### 3.2.2.2 The supply side of equity market

The supply side of the equity market, *i.e.* the issuer of securities, is much more complex considering their active role in choosing whether to issue external equity. Firms are taken public with different purposes. For example, most of the prevalent models, such as Shleifer and Wolfenzon (2002), LLSV (2002), assume that firms are controlled by insiders, who will exploit private benefits of control. Therefore, how to maintain his controlling status will be the major concern for the issuer. In contrast, some firms are taken public to sell and the insiders will maintain a marginal amount of shares (as block shareholders), where valuation will be the only concern. Burkart *et al.* (2003) provide a framework to understand the reasons why such concern on valuation is optimal in countries with efficient minority shareholder protection. However, if private benefits of control are significant, even firms taken public to sell may end up with higher valuation, if the controllers could sell the cash flow and control rights separately (Zingales, 1995).

As a result, it is argued that protection of minority shareholder influences IPO decisions through two channels: One is increasing valuation of the shares sold, the other is undermining the dominant shareholder's control. Previous studies only focus on the beneficial side of shareholder protection, and overlook the costs of issuing equity, which according to Loughran *et al.* (1994) could reach 80.3% of the capital raised. The costs of underpricing will reduce the controller's wealth, as shown by Habib and Ljungqvist (2001) that controllers will employ more costly promotion strategies to reduce the magnitude of underpricing.

IPO underprcing could be due to various reasons, at least theoretically. The researches on underpricing of shares during IPO start from the effects of asymmetric information,

which though is exogenous to the model presented below, but relevant in the empirical part. Normally the IPO process involves three participants: Issuers, investment banks, and investors. Rock (1986) starts to model underpricing as compensation to uninformed investors and protecting them from the "winner's curse". Further studies regard underpricing as information production costs. Allen and Faulhaber (1989) and Welch (1989) employ a signaling model where firms with high quality projects signal to the market of their type to achieve a separating equilibrium. Sherman and Titman (2002), in contrast, regard underpricing as the costs to induce the investors to reveal their price and demand information. Hence the IPO clustering, observed in both Figure 3.1 and Figure 3.2 may due to the fact that the economy of scale in valuing securities. Finally, there are also agency problem between issuer and investment banks, which may not try to maximize the issuer's wealth. Loughran and Ritter (2004) find that investment banks use the underpriced shares as side payments to their long-term customers for future business.

Minority shareholder power will influence the controller borne costs of underpricing through two channels based on the principal-agent theory.[32] The first one focuses on the monitoring role provided by the blocking shareholders, which greatly increases the valuation of outside shares. Stoughton and Zechner (1998) model the relationship by assuming that shareholders differ in their abilities to monitor the controllers, and large shareholders have the comparative advantage in doing so. To exploit the externality of their monitoring efforts, shares are rationed towards large shareholders forming block shareholders. The level of underpricing will be negatively correlated with the minority shareholder power as fewer benefits will be generated from monitoring activities in efficient regulated markets.

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[32] Smith (1776) first think about the effects of agency problem on corporate governance: "The directors of such companies, however, being the managers rather of other people's money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own" (Book 5, Ch. 1.3.1.2).

Optimal monitoring is studied by several papers in other contexts. Pagano and Roell (1998) model that controllers will choose the optimal ownership structure to induce the optimal amount of the monitoring from block shareholders, which is due to the fact that controllers' bearing all the agency costs. They face the trade-off between over monitoring and costs of going public. Burkart and Panunzi (2006) instead argue that legal protection may be substitute or complement to block shareholder monitoring. As a result, the relationship between shareholder protection and the optimal ownership structure is not monotonous.

The second channel is proposed by Brennan and Franks (1997) and focuses on private control, which is taken as the major concern in the next section. Taking firms public, the controllers then face monitoring of outside investors, which will prevent them from gaining private benefits of control. *Ex ante* they have an incentive to underprice their shares to induce subscription of the dispersed investors and ration the shares to minority shareholders. Hence, underpricing is an instrument to entrench the managerial control and prevents the amassing of block shareholders. When outside investors are conferred with greater power and consequently minority monitoring become more easily, controllers will underprice the shares to a greater magnitude to induce more subscription of shares and more dispersed shareholding post-IPO. The model predicts a positive relationship between the magnitude of underpricing and the level of shareholder protection.

Consequently, the relationship between the magnitude of underprcing and minority shareholder power is an empirical issue. Smart and Zutter (2003) compare the IPO underprcing between single and dual-class companies, and controlling for other factors, dual-class companies underprice 2.9 percentages less. As dual-class shares separate the cash flow rights from the voting right, they are comparatively more protected from market acquisition and minority monitoring. When undertaking IPO, controllers will care less about forming a dispersed ownership structure, and so the magnitude of underpricing is smaller.

Another recent empirical work by Boulton *et al.* (2010) employs a large firm-level data set of 4462 IPOs across 22 countries, and confirms the positive relationship between minority shareholder protection and the magnitude of underpricing. When the outsiders are more easily to monitor insiders due to better legal protection, the issuer underprices the "asset in place" more to amass a more dispersed ownership structure. As a result, in the following section, the author assumes net positive effects of minority shareholder power on magnitude of underpricing.

## 3.3 Theoretical Considerations

This section analyzes the effect of minority shareholder protection on the post-IPO wealth of the firm's controller, in the presence of underpricing of "asset in place", and generates the testable hypotheses. The model is closely related to those employed in Shleifer and Wolfenzon (2002), LLSV (2002), and Durnev and Kim (2005).

### 3.3.1 A simple model

Consider a representative firm in a given country, which is privately owned by a single controller with an "asset in place" standardized to one unit, and has a project requiring investment $e$ with the productivity rate $g \in [0, +\infty)$, which is known to all stakeholders. Also the firm is assumed to be cash constrained, so any amount invested must be raised through outside equity.[33] For simplicity, all stakeholders are assumed to be risk neutral and there is no transaction cost. In addition, following Jensen and Meckling (1976) and SW, the controller is assumed to divert the asset of the firm to himself. If he diverts, he is assumed to be caught with probability $k \in [0,1]$, where the parameter $k$ reflects the level of minority shareholder protection (Becker, 1968). The higher value of $k$ corresponds to better minority shareholder protection.

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[33] Firms with accumulated financial slacks, which are known to outsiders, shall not change the main results. And we follow the literature assuming that firms could not switch between equity and debt finance. For example Bharath *et al.* (2009) show that the level of asymmetric information will change of firms' propensity to use debt to finance its deficit.

The model has two dates, which is shown in Figure 3.4. At date 1, the firm is assumed to actively decide whether to undertake IPO, and *i(k)*, the required rate of return for equity finance, is assumed exogenous to the firm, which equals market interest rate plus a premium of agency costs (Lombardo and Pagano, 1999). Better minority shareholder protection limits the managerial discretion and reduces the agency costs, and thus *i(k)* is a decreasing function of *k*. The leading role taken by the firm considers the fact that it could follow "pecking order", and pass the equity finance even if it becomes cheaper, and stick to less information-sensitive sources of finance, such as retained earnings (Myers and Majluf, 1984).

If the controller takes the firm public to raise the funding *e* for the new project, he deliberately values the "asset in place" to an underpriced amount of *u(k)* to create excess demand for the shares. The underpricing of "asset in place" is the model's major difference from previous ones. The magnitude of underpricing is a decreasing function of the legal protection of minority shareholder, *k*. Consequently, the controller's share of firm post IPO is *x=u(k)/(u(k)+e)*.

Figure 3.4 The sequence of events

| Initial stage | IPO | Tunneling and realizing the payoff |
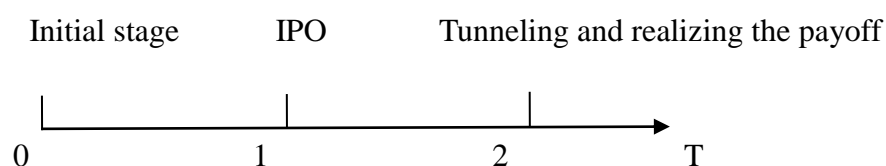


At date 2, the project generates *g* return, and the controller is assumed to tunnel a share, *d(k)*, of the assets of the firm to himself (SW, 2002; LLSV, 2002; Durnev and Kim, 2005). If the owner is caught diverting, he is forced to return the diverted amount to the firm, and additionally, to pay a fine, *p(d)* share of the valuation of the firm at the end of period, to the authority. In this scenario, the entire revenue is distributed as dividend. Consequently, the controller's expected wealth after the realization of the project's revenue is given by

$$F(k) = \{k[x-p(d)]+(1-k)[x(1-d(k))+d(k))]\} * [1+e*(g+1)]$$

The assumptions about the general properties of the ownership function $x(.)$, diversion function $d(.)$, and penalty function $p(.)$ are made as follows:

**Assumptions** The ownership function $x(.)$, diversion function $d(.)$, and penalty function $p(.)$ are assumed to satisfy

(A1) $p(0)=0, p(.)\geq0, d(.)\geq0, x(.)\geq0$

(A2) $\partial d/\partial k <0, \partial u/\partial k <0$

(A3) $\partial p/\partial d > 0, \partial^2 p/ \partial^2 d >0$

First, (A1) requires that if the controller does not divert, there will be no penalty, and both $p(.)$ and $d(.)$ are non negative, as both penalty and diversion cannot take the negative amount. In addition, controller's ownership $x(.)$ is assumed to be nonnegative. Second, the first term in (A2) requires that the diversion amount is a decreasing function of the level of investor protection. Controlling for other factors, the better is the minority shareholder protection, the fewer of firm's assets are diverted by the controller. Also as is explained before, the underpricing magnitude is assumed to be an increasing function of the minority shareholder protection. Finally, the first part of (A3) follows that the penalty is an increasing function of the diverted amount, since a higher fine will be paid to the authority as the controller diverts more firms' resources to himself. The second term of (A3) implies that the marginal fine increase with the diverted amount.

**Proposition 1.** At the equilibrium, the firms undertaking IPO shall satisfy the both of the following two conditions:

(P1) $g \gtreqqless i(k)$

(P2) $F(k)/_{d*} \gtreqqless 1$

Proposition 1 is the decision rule for the controller, and the proof of this proposition is straightforward. Using backward induction, at date 1 if the controller decides to undertake IPO, then at date 2 both the valuation of the firm and the wealth of the controller shall be maximized. The first condition (P1) guarantees the maximization of firm's valuation. Since all parties are assumed to have perfect information about the project, the negative NPV projects will not be financed by investors. Thus, the possibility that controllers gain only from exploiting the minority shareholders are excluded. (P2) follows as the controller shall be at least no worse off financing the project than doing nothing at all. Consequently, at the end of the period, the wealth of the controller shall be no less than the one at the beginning of the period.

**Proposition 2.** The controller's ownership of firm's asset at the optimal diversion level at date 2 is a decreasing function of minority shareholder protection. Let $f(k)= k[x-p(d)]+(1-k)[x(1-d(k))+d(k))]$, then the ownership function $f(k)$ is a decreasing function of $k$ at the *ex post* optimal diversion rate $d(.)^*$.
Proof: See Appendix A.

By definition, $f(k)$ is defined as the controller's share of firm's asset at date 2. Proposition 2 indicates that at the optimal diversion rate $d(.)^*$, the controller's ownership, $f(k)|_{d*}$, decreases as the level of minority shareholder protection increases and increases as the level of minority shareholder protection decreases. The reason that it is focused on the optimal, rather than any diversion level, is that only the *ex post* optimal level $d(.)^*$ enters the controller's pre-issuance cost-and-benefit analysis.

### 3.3.2 Comparative statics analysis

In this subsection, the previous model is applied to compare firms' decision to undertake IPO at the high level of minority shareholder protection $k_H$ with that at the low level $k_L$. The market required rate of return is a decreasing function of $k$ therefore $i(k_H)< i(k_L)$. Additionally, by Proposition 2, the controller's expected wealth $F(k)|_{d*}$ is

also a decreasing function of $k$, which means for any given firm, its controller's wealth $F(k_H)/_{d*} < F(k_L)/_{d*}$. Without considering the costs of underpricing, the firm should take all the positive NPV projects to maximize its valuation as proposed in SW. However, certain positive NPV projects may fail to compensate the controllers for the value they give up at IPO. Hence, the minority shareholders protection shall not exerts homogenous effects on firms with different characteristics.

The universe of the firm could be partitioned to four groups. The firms' decisions to undertake IPO in first two groups will not be influenced by minority shareholder protection. The first group is the one which will never undertake IPOs. They are either with extremely productivity rate, *i.e.* $g < i(k_H)$, or with extremely low private benefits to the controller, *i.e.* $F(k_L)/_{d*} < 1$. The attributes of firms in the third subgroup are more complicated, satisfying both $i(k_H) \leq g < i(k_L)$ and $F(k_H)/_{d*} < 1 \leq F(k_L)/_{d*}$. When minority shareholder protection is low, the productivity rate is smaller than the market required rate of return, though the controller could get positive benefits from financing the project. In contrast, when minority shareholder protection is high, the project brings positive NPV to the firm, but the controller fails to get positive benefits.

The second group of firms will always undertake IPO regardless the level of minority shareholder protection. They have both the productivity rate no smaller than the market interest rate at low minority shareholder protection level, and the "asset in place" no larger than than the controller's private benefits at high level minority shareholder protection, *i.e.* both $g \geq i(k_L)$ and $F(k_H)/_{d*} \geq 1$.

The influence of changes in interest rate is relatively straight forward, while that of the controller's wealth merits some explanations. Rearranging the condition (P2) yields:

(P2') $f(k)/_{d*} * e * g \geq 1 - f(k)/_{d*} * (1+e)$

The left hand side of (P2') is controller's expected benefits from the project, and the right hand side is the controller's private costs due to financing the project. (P2') requires that the controller's private benefits are no smaller than the private costs from financing the project. Though the productivity rate is larger than the market required rate of return, the expected NPV could be low, so the net benefits generated from the project to the controller may fail to compensate him for the value he gives up.

The other two groups of firms, whose decisions to undertake IPO depend on the level of minority shareholder protection, are defined as the marginal firms. For the first group of firms, the productivity rate is lower than the market interest rate at the low level of minority shareholder protection, but still higher than the market interest rate at the high level, *i.e.* $i(k_H) \leq g < i(k_L)$. At the same time, the controllers could benefit from the project regardless of the level of minority shareholder protection, *i.e.* $F(k_H)/_{d*} \geq 1$. Consequently, the cost of the external finance is the major obstacle to taking the external equity finance. Hence, when minority shareholder protection increases (decreases), the required market rate of return decreases (increases) to a level smaller (larger) than the productivity rate, then the firm will change from staying private (undertaking IPO) to undertaking IPO (staying private). The change in the number of firms undertaking IPO due to different interest rates is defined as the interest rate effect, which is positive in the sense that the number is an increasing function of the minority shareholder protection.

In contrast, for the second group of firms, the project's productivity rate is very high and not the concern for financing the project, *i.e.* $g \geq i(k_L)$. Due to the fact that the controller's post-IPO wealth is a decreasing function of minority shareholder protection, its improvement could reduce the controller's wealth to a level that is smaller than the "asset in place", though he is able to benefit from the project at low level of minority shareholder protection, *i.e.* $F(k_H)/_{d*} < 1 \leq F(k_L)/_{d*}$. In this scenario, the controller's private benefit is the major obstacle to taking the external equity finance. Hence, when minority shareholder protection increases (decreases), the controller's

post-IPO wealth decreases (increases) to an amount smaller (larger) than the "asset in place", then the firm will change from undertaking IPO (staying private) to staying private (undertaking IPO). And this change in the number of firms undertaking IPO due to different level of controller's private benefits is defined as the private benefit effect, which is negative in the sense that the number of firms is a decreasing function of the minority shareholder protection.

### 3.3.3 The decision to make seasoned offering

Another important source of external equity finance is seasoned offering. It is also well documented that seasoned equity finance exerts negative impacts on the share prices of listed firms,[34] as equity finance signals to the market that they may undertake low-quality projects (Myers and Majluf, 1984).

However, two factors distinguish the seasoned equity finance from IPO. First, generally speaking the ownership structure of listed firms is much more dispersed than that of the firm intending to undertake IPO (Franks *et al.*, 2009; Foley and Greenwood, 2010).[35] The costs of underpricing "asset in place" are shared among controllers and outside investors, while benefits due to tunneling from a larger firm are enjoyed by the controller alone. At this moment, the insider resembles professional managers. One extreme example is when the controller is professional manager, who holds no equity in the firm. Therefore, issuing external equity imposes no costs on him. Following condition (P2), any private benefit of control will induce the controller to make seasoned offering.

In addition, the controller could not dilute the shareholdings of block shareholders during seasoned offering, as the company law in most countries offers shareholders

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[34] Asquith and Mullins (1986) measure that announcement of equity issuance results in around 3 percent negative shock to the stock price.

[35] For seasoned offering, the decision is made by controlling minority shareholders (Bebchuk, Kraakman, and Triantis, 2000), who own only a minority of cash flow rights, but controls greater votes.

preemptive rights, which grant shareholders the first opportunity to buy the new issues of stocks. Underpricing no longer serves as a tool for controllers to induce more subscription, since they cannot ration shares to dispersed investors. Hence, the assumption about the positive relationship between the magnitude of underpricing and the minority shareholder protection is no longer hold in seasoned offering. Consequently, for seasoned offering, it is expected that the interest rate effect is the major concern, and minority shareholder protection is positively correlated with the amount of seasoned offering.

## 3.3.4 Testable hypotheses

To test the net effect of minority shareholder protection on the marginal firms' decisions to issue external equity, the author employs two stock market outcome variables. The number of listed firms is sensitive to the number of new entrants to the stock market, while the stock market capitalization is mainly influenced by the seasoned offering of those listed firms. Two testable hypotheses are as follows:

**Hypothesis 1.** *Null Hypothesis ($H_0$)*: The number of listed firms is positively correlated with the minority shareholder protection, and the interest rate effects dominate.
*Alternative Hypothesis ($H_1$)*: The number of listed firms is negatively correlated with the minority shareholder protection, and the private benefit effects dominate.

**Hypothesis 2.** *Null Hypothesis ($H_0$)*: The stock market capitalization is positively correlated with the protection of minority shareholder, and the interest rate effects dominate.
*Hypothesis ($H_1$)*: The stock market capitalization is negatively correlated with the protection of minority shareholder, and the private benefit effects dominate.

## 3.4 Data

The panel dataset of the minority shareholder protection, "Shareholder protection index (SPI)", which comes from the "Law, Finance and Development" project at the Center for Business Research at the University of Cambridge and covers 25 countries for 11 years from 1995 to 2005, is employed to serve as the proxy for the minority shareholder protection level $k$.[36] In the sampled countries, SPI converges to the generally accepted norms of corporate governance "best practice" (Armour *et al.*, 2009), and most of the countries constantly improve their standards.

The reasons to choose this data set are as follows: First, SPI is a panel data set, which offers the opportunity to cope with both dynamic effects and the fixed effects. The cross-sectional analysis without valid instruments is severe biased due to its failure to deal with these effects. Second, the index incorporates both court decisions and default rules in addition to the "law on the book", which is an advantage to the coding strategies employed by LLSV (1998).

Finally, SPI considers both legal techniques aiming at solving agency problem between management and shareholders, and controlling shareholder and minority shareholder.[37] The formal data set usually concentrates on a single aspect of the agency problems facing in different countries, and such empirical specification employs lethal bias. Bebchuk. and Hamdani (2009) argue that agency problems between the minority shareholders and management are major concerns for firms with

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[36] SPI mainly covers rules concerning shareholder protection in listed countries, which consists of ten components, for a detailed discussion about the codification approach of the index, see Lele and Siems (2007).

37 In criticizing DLLS (2008), Conac *et al.* (2007: 494) argue against measuring quality of corporate governance using American criteria that "[I]t is in fact tempting to compare corporate laws by taking one benchmark jurisdiction, typically the US, and to assess the quality of other countries' corporate law systems depending on how much they replicate some prominent features of American law, such as for example Delaware Courts' emphasis on approval of self-dealing transactions by a majority of the minority shareholders."

dispersed ownership structure, which is prevalent in both U.S. and U.K. listed firms.[38] Hence, the SPI is important to complement the current empirical analysis, which covers ten sub-indices incorporating mechanisms against both agency problems. In addition, these sub-indices use both binary and non-binary coding, and hence accommodate greater variation among countries.

The dependent and controlling variables come from the World Development Indicators 2011 of World Bank. Two outcome variables include the "Natural Logarithm of the number of domestic firms listed in a given country to its population (LNLIST)", and "Ratio of stock market capitalization to GDP (CMMKT)". Most of the regressions perform techniques dealing with the fixed effects, and hence many variables measuring the country-specific characteristics are not included as controls. Following the previous literature, two controlling variables, "Logarithm of GDP per capita (LNCAPITA)" and "Trade openness (OPENNESS)" (Rajan and Zingales, 2003), are included. Table 3.1 reports the descriptive statistics of the variables, while the definitions and sources of the variables are shown in Table B1 of Appendix B.

## 3.5 Empirical results

This section uses the data just described to empirically test the hypotheses presented in Section 2. To incorporate the dynamic effects, I follow the specification suggested by Pagano and Volpin (2006) and include the lagged dependent variable.[39] The generic model is presented as Equation (1), where $y_{i,t}$ is the vector of dependent variables, including CMMKT and LNLIST, and $y_{i,t-j}$ is the vector of $j^{th}$ lag of the dependent variable, $j$ ranging from 1 to $p$. In addition, $x_{i,t}$ is the vector of independent variables, including $SPI_{i,t}$, $OPENNESS_{i,t}$ and $GDP_{i,}$, and $a_0$ is the constant term, $a_j$ and

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[38] Bhagat *et al.* (2008) also caution to employ the Anglo-Saxons criteria to measure the governance systems across countries, which implicitly assumes that "one-size-fit-all" governance system fits all countries.

[39] Some studies include lagged independent variable instead of the lagged dependent variable, for example, see Haselmann *et al.* (2010) for inclusion of the lagged proxy for creditor rights.

$\beta$ are coefficients. Finally, $u_i$ is the country dummy, $v_t$ the time dummy, and $\varepsilon_{i,t}$ the idiosyncratic error term.

$$y_{i,t} = \alpha_0 + \alpha_j \sum_{j=1}^{p} y_{i,t-j} + \beta \, x_{i,t} + u_i + v_t + \varepsilon_{it} \tag{1}$$

Ideally, the estimation shall base on Equation (1), the concern that the dependent variables may be nonstationary and have unit root asks for some diagnostic tests. Consequently, the unit root test by Im *et al.* (2003) is applied to both CMMKT and LNLIST. After subtracting the panel means to control for the cross sectional dependence, the test fails to reject the null hypothesis that LNLIST has a unit root process, but rejects that CMMKT has a unit root with *p*-value 0.0713. Consequently, the dynamic regressions with dependent variable LNLIST use the first-difference data.

### 3.5.1 Minority shareholder protection and number of listed firms

This subsection tests the Hypothesis 1, that SPI is negatively correlated with LNLIST. Table 3.2 presents the regression outputs where LNLIST is employed as dependent variable, SPI the explanatory variables of interest, and OPENNESS and LNCAPITA controls. In column 2, the static OLS estimator without dealing with fixed effect is reported as the baseline. The coefficient for SPI is positive in magnitude but insignificant. In the third column, the lagged dependent variable and full set of country and time dummies are included. But the time dummies are all insignificant. Unlike the results reported in the second column, the SPI is highly significant, with the coefficient -0.0728. The dynamic-panel Fixed Effect is biased, which is hence not reported, because the transformed residual is correlated with the differenced lagged dependent variable (Hisao, 2003).

Since the panel unit root test indicates that LNLIST has a unit root process, the Equation (1) is transformed with the first difference. To cope with the endogenous

variables bias, the internal generated instruments of the independent variables suggested by the system GMM techniques is employed (Arellano and Bond, 1991; Blundell and Bond, 1998). The result is shown in the fourth column of Table 3.2. The application of the GMM-sys estimator merits some clarifications. First, the difference transformation could only expunge the country-specific fixed effect $u_i$ therefore time dummies should be included in the model.[40] Second, the variance matrix is severely downward biased, and the Windmeijer's finite-sample correction for the two-step GMM covariance matrix should be performed (Windmeijer, 2005; Roodman, 2009). Third, except for the time dummies, all other independent variables are instrumented in the GMM style, that is they are instrumented with their lags (level and differenced).

The estimated coefficient of SPI is about -0.1, which is larger in magnitude than the one reported in the third column, and is regarded as the consistent estimate of SPI's effect on LNLIST. The Arellano-Bond test for autocorrelation for the residuals is reported at the bottom of the column 4, and fails to reject the null hypothesis of no autocorrelation of order two in the transformed error term. The coefficient of SPI is the semi-elasticity between the standardized number of listed firms and the minority shareholder protection. One point increase in SPI is associated with about 10 percent decrease in the standardized number of firms listed on the stock market. The negative effects of SPI on LNLIST rejects the Null hypothesis of Hypothesis 1 that LNLIST is positively correlated with SPI, and proves that the private benefit effects dominate.

## 3.5.2 Minority shareholder protection and stock market capitalization

This subsection tests the Hypothesis 2 whether SPI is positively correlated with CMMKT. Table 3.3 presents the estimated results. Still in column 2, the static OLS estimator without time and country dummies is reported. The SPI is shown to be significantly correlated with CMMKT, and positive in magnitude. Due to the fact that

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[40] However, in this specification, the time dummies are all insignificant and not included.

some time- and country- dummies are insignificant and boost the estimated variance, in column 3 only significant dummies are included in addition to the lagged dependent variables. In contrast, the coefficient of SPI is less than half of the one reported in the second column, indicating that the later specification ascribes much of the explanatory power of the omitted variables to SPI.

To cope with the endogenous variable bias, the GMM-sys estimator is applied to the dynamic specification represented by Equation (1) with AR (2) specification. The results are shown in the fourth column. The controlling variables LNCAPITA and OPENNESS fail to enter the model significantly and hence are excluded. In addition, the time dummies are included to control for the common time shock. Finally, the lagged dependent variables and the SPI are instrumented in GMM style, and the Windmeijer's finite-sample correction is performed. The coefficient of SPI is reduced again and is now around 1.96, less than two thirds of the one reported in column 3, and is significant at 5 percent. The Arellano-Bond test for autocorrelation confirms that there is no first order autocorrelation in the error term. The results support that listed firms increase their seasoned offering as the minority shareholder protection improves.

### 3.5.3 Comments

The empirical outputs reported in Table 3.2 and 3.3 confirms the opposite effects of SPI on two proxies for stock market outcomes, which is not common in previous studies, and seems to be controversial. However, it reflects the heterogeneity resided in the sources of variation of the stock market outcomes. As the theoretical part shows that the equity financing decisions of those firms intending to list on the market and those already listed on the market depend on different costs and benefits caculations. The costs of underpricing during IPO are major obstacles for the controllers of private firms, but are no longer the concern for controllers of listed firms making seasoned offering, because of the preemptive rights and dispersed ownership structure.

Therefore, once the external equity becomes cheaper, the listed firms will increase their seasoned financing.

## 3.6 Conclusion

This Chapter presents a simple model to investigate if the rules of minority shareholder protection affect firms' decision to issue external finance homogenously. The level of minority shareholder protection influences firms' decisions through two channels: The cost of external finance and the private benefits of controller. Using the dynamic panel specification and GMM-sys estimator, this study confirms that the minority shareholder protection could imposed heterogeneous effects on stock market outcomes. The additional costs imposed on controllers of private firms reduce their incentives to undertake IPO, while the decreased costs of external finance facilitate listed firms to make seasoned offering.

# Tables and Appendices

## Table 3.1 Descriptive statistics

| Variable | Mean | Standard deviation | Number of observation | Number of countries |
|----------|------|--------------------|----------------------|---------------------|
| LNLIST | 2.330769 | 1.205751 | 275 | 25 |
| CMMKT | 72.80757 | 61.46514 | 275 | 25 |
| SPI | 4.916887 | 1.620371 | 275 | 25 |
| OPENNESS | 64.90363 | 39.90047 | 275 | 25 |
| LNCAPITA | 8.914121 | 1.280728 | 275 | 25 |

The panel spans the 1995-2005 intervals and includes 25 countries. SPI is the proxy for minority shareholder protection, and from CBR at Cambridge University. All the rest variables, LNLIST, CMMKT, OPENNESS, and LNCAPITA are drawn from the World Development Indicator 2011.

## Table 3.2 Shareholder protection and number of listed firms

Dependent variable: Natural Logarithm of the number of domestic firms listed in a given country to its population

| | Pooled Cross Section 1 | Pooled Cross Section 2 | GMM-sys |
|---|---|---|---|
| First lag of Natural Logarithm of the number of domestic firms listed | | 0.7927019*** (8.61) | |
| Shareholder protection index | 0.0460594 (1.19) | -0.0728308 ** (-2.50) | -0.0998476*** (-2.26) |
| Trade openness | 0.0102013*** (11.72) | -0.0004477 (-0.21) | -0.0024874 (-0.84) |
| Logarithm of GDP per capita | 0.5001806*** (10.28) | -0.0344501 (-0.15) | 1.050082* (1.91) |
| Constant | -3.016472*** (-6.43) | 1.509016 (0.69) | N/A |
| Time dummies | No | Yes | No |
| Country dummies | No | Yes | No |
| AR (1) test p-value | N/A | N/A | 0.048 |
| AR (2) test p-value | N/A | N/A | 0.720 |
| R-squared | 0.4378 | 0.9779 | N/A |
| N | 275 | 275 | 275 |

1) The OLS estimator is applied in the second and third column. "Pooled Cross Section 1" does not include any dummies, "Pooled Cross Section 2" includes both lagged dependent variable and the country and time dummies.

2) In the fourth column, GMM-sys estimator is applied to the first differenced data, and the empirical model is: $\Delta LNLIST_{i,t} = a_1\Delta SPI_{i,t} + a_2\Delta OPENNESS_{i,t} + a_3\Delta LNCAPITA_{i,t} + v_t + \varepsilon_{i,t}$.

3) "N" stands for the sample size. The robust t-stat is reported in the parentheses in the second and third columns, and the z-stat in the fourth one.

4) *, **, *** stand for 10%, 5%, and 1% significance level respectively.

## Table 3.3 Shareholder protection and stock market capitalization

Dependent variable: Ratio of stock market capitalization to GDP

| Independent Variables | Pooled Cross Section 1 | Pooled Cross Section 2 | GMM-sys |
|---|---|---|---|
| First lag of ratio of stock market capitalization to GDP | | 0.5686416 *** | 0.7324995*** |
| | | (4.01) | (5.90) |
| Second lag of ratio of stock market capitalization to GDP | | 0.0923254 | 0.1551219** |
| | | (1.13) | (2.29) |
| | | | |
| Shareholder protection index | 8.145911*** | 3.117039*** | 1.958098** |
| | (5.15) | (2.98) | (2.36) |
| Trade openness | 0.3726716*** | 0.0263593 | |
| | (4.13) | (0.52) | N/A |
| Logarithm of GDP per capita | 17.39538*** | 8.222245*** | |
| | (7.36) | (2.69) | N/A |
| Constant | -146.4972 | | |
| | (-7.87) | | |
| Time dummies | No | Yes | Yes |
| Country dummies | No | Yes | No |
| AR (1) test p-value | N/A | N/A | 0.069 |
| AR (2) test p-value | N/A | N/A | 0.345 |
| R-squared | 0.2673 | 0.8899 | N/A |
| N | 275 | 275 | 275 |

1) The OLS estimator is applied in the second and third column. "Pooled Cross Section 1" does not include any dummies, "Pooled Cross Section 2" includes both lagged dependent variable and the country and time dummies.

2) In the fourth column, GMM-sys estimator is applied to the empirical model: $CMMKT_{i,t} = a_0 + a_1 CMMKT_{i,t-1} + a_2 CMMKT_{i,t-2} + a_3 SPI_{i,t} + v_t + \varepsilon_{i,t}$.

3) "N" stands for the sample size. The robust t-stat is reported in the parentheses in the second and third columns, and the z-stat in the fourth one.

4) *, **, *** stand for 10%, 5%, and 1% significance level respectively.

# Appendix A

**Proof of Proposition 2.**

To prove that $f(k)$ is a decreasing function of $k$ at the optimal diversion rate $d(.)^*$ is equivalent to prove that $(\partial f/\partial k)|_{d*}$ is negative.

First, follow the assumption (A3) that $\partial u/\partial k <0$, and the controller's ownership after IPO at date 1 is given by $x=u/(u+e)$

$\Rightarrow \partial x/\partial k<0.$

Second, the optimal diversion rate is given by the first order condition $\partial f/\partial d^* =0$

$\Rightarrow -k*\partial p/\partial d^*+(1-k）(1-x)=0$

$\Rightarrow \partial p/\partial d^*=(1-k)(1-x)/k$

Notice that the optimal diversion function $d(.)^*$ is still a function of level of minority shareholder protection $k$.

Third, rearrange $f(k)=x(1-d+kd)+(1-k)d-kp(d)$

So $\partial f/\partial k=\partial x/\partial k(1-d+kd)+x(-\partial d/\partial k+d+k*\partial d/\partial k)-d+(1-k)*\partial d/\partial k$

$\qquad -p(d)-k*(\partial p/\partial d)*(\partial d/\partial k)$

At the optimal diversion level, replace $\partial p/\partial d^*$ with $(1-k)(1-x)/k$,

$(\partial f/\partial k)|_{d*}=\partial x/\partial k(1-d^*+kd^*)+x(-\partial d^*/\partial k+d^*+k*\partial d^*/\partial k)-d+(1-k)*\partial d^*/\partial k$

$\qquad -p(d)-(1-k)(1-x)(\partial d^*/\partial k)$

$=\partial x/\partial k(1-(1-k)d^*)-(1-x)d^*-p(d*)$

Follow assumption (A1), then $-p(.)\leqq 0.$

Because $x$ is the controller's share of firm at date 1, by definition it is smaller than 1, and together with (A1), $-(1-x)d^* \leqq 0.$

As is proved $\partial x/\partial k<0$, and $k$ is the probability of getting caught, and by definition, it is smaller than 1, and hence *(1-(1-k)d$^*$) $\geqq$0*. Together, $\partial x/\partial k$*(1-(1-k)d$^*$) $\leqq$0*.

Since the three terms above will not equal zero together, $(\partial f/\partial k)|_{d*}<0$. Hence, *f(k)* is a decreasing function of $k$ at the optimal diversion rate *d(.)$^*$*

# Appendix B

**Table B1 Definitions and sources of the variables**

| Variables | Description | Sources |
|---|---|---|
| CMMKT | Ratio of stock market capitalization to its GDP from 1995 to 2005. | Source: World Development Indicators at http://devdata.worldbank.org/dataonline/. |
| LNLIST | Natural Logarithm of the number of domestic firms listed in a given country to its population (in millions) from 1995 to 2005. | Source: World Development Indicators at http://devdata.worldbank.org/dataonline/. |
| SPI | Shareholder protection index from 1995 to 2005. | Source: "Law, Finance and Development" Project by Deakin *et al.* at http://www.cbr.cam.ac.U.K./research/projects/project2-20output.htm. |
| LNCAPTIA | Logarithm of per capita GDP (in 2000 U.S. dollars) from 1995 to 2005. | Source: World Development Indicators at http://devdata.worldbank.org/dataonline/. |
| OPENNESS | Proxy for the political power in a given country, measured by the sum of exports and imports of goods and services divided by GDP, measured from 1995 to 2005. | Source: World Development Indicators at http://devdata.worldbank.org/dataonline/. |

# 4 The over-empowered controlling shareholder and the stagnant Chinese stock market: The mismatched means and ends of corporate governance

## 4.1 Introduction

The governance structure between shareholder group, and board and management in public corporations[41] attracts great attention from scholars in corporate law[42] and corporate governance[43]. Recent studies on shareholder activism[44] see it as a cure to the agency problems arising from the dispersed ownership structure and separation of

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[41] The central feature of public corporation is the separation of ownership and control as identified in current corporate governance literature. For example, Stout, (2013: 2005) characterizes public corporation as "large, publicly listed company with professional management and dispersed shareholders". And Acharya *et al.* (2011: 689) argue that public corporation "is commonly viewed as an organization run by CEOs and monitored by a board of directors on behalf of shareholders."

[42] The corporate law discussed in this paper is defined broadly and includes the "law that articulates company structure and regulates relationships among shareholders and between shareholders and corporate managers" (Black and Kraakman, 1996: 1919). For example, the source of American corporate law contains the state corporation statutes; the common law of fiduciary duty; the provisions of the securities laws that regulate insider liability, shareholder voting, and control contests; and stock exchange listing standards that impose governance requirements on listed companies. And British corporate law law contains statutory company law, the common law of fiduciary duty, the listing rules, and the City Code on Takeovers and Mergers. For Chinese corporate law discussed in this Chapter, it includes the statutory *Company Law and Security Law*, the decrees and opinions issues by the State Council, the regulatory documents issued by ministries and security regulators, and the judicial interpretations issued by the Supreme People's Court.

[43] There are also multiple definitions with respect to corporate governance. The Cadbury Report (1992) defines corporate governance as "the system by which companies are directed and controlled" (Section 2.5). Shleifer and Vishny (1997: 737) deliver the definition from the perspective of investor protection, with "corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment." Such definition is shared by Denis and McConnell (2003: 2), who define corporate governance as "the set of mechanisms-both institutional and market-based-that induce the self-interested controllers of a company (those that make decisions regarding how the company will be operated) to make decisions that maximize the value of the company to its owners (the suppliers of capital)." See the recent special issue of *The Review of Financial Studies* on the cutting-edge corporate governance researches, and the introductory article by Bebchuk and Weisbach (2010).

[44] Low (2004: 165) provides a general description of shareholder activism, that is, "the exercise and enforcement of rights by minority shareholders with the objective of enhancing shareholder value over the long term". Cheffins and Armour (2011) distinguish the defensive shareholder activism from offensive activism basing on whether the shareholder has accumulated a sizable stake before initiating their proposals.

ownership and control, which is first documented by Berle and Means (1932) for listed firms in U.S.. The two largest economic entities, U.S. and European Union (E.U.) both enact rules increasing the shareholder power. For example, the American *Dodd-Frank Wall Street Reform and Consumer Protection Act* (*Dodd-Frank Reform Act*) gives the Securities and Exchange Commission (SEC) the power to grant shareholders with "proxy access", *i.e.* shareholder nominees for directors are included in the proxy materials sent to all of its shareholders before the annual meeting, and "say on pay", *i.e.* shareholders give nonbinding vote on compensation packages of the company's directors and top executives. Similarly, the EU Directive 2007/36/EC explicitly recognizes that "effective shareholder control through shareholder activism is a prerequisite to sound corporate governance and should therefore be facilitated and encouraged" (Ginevri, 2011: 588).

This Chapter is dedicated to discussions of allocation of rights and duties between shareholders and directors against the back ground of shareholder empowerment.[45] The economy of China has been in fast development for more than 30 years ever since its enforcement of the *Reform and Opening Up Policy* in 1978, trying to transform China from a centralized economy to a market economy. However, such spectacular economic achievements rest on its weak legal protection of its investors (Allen *et al.*, 2005), which the law and finance literature emphasizes as the

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[45] A recent debate on shareholder empowerment among the U.S. corporate law scholars manifests its importance. Bebchuk (2005, 2006) holds that the allocation of the initiation rights of all major corporate decisions with the board is inefficient and self-interested directors will block adoptions of value-enhancing governance arrangements. Hence, shareholders should be allowed to make decisions on the "rule-of-game" issues including amendment of the corporate charter or changes in the company's state of incorporation, and the "game-ending" ones including decisions to merge, sell all assets, or dissolve the company, and the "scaling-down" ones, including cash or in-kind distribution.
Such view is criticized by a series of papers supporting director control. Theoretically, the shareholder interests are heterogeneous (Anabtawi, 2005) and in conflict (Strine, 2006), the dispersed ownership structure makes the centralized decision making by directors fully exploit the benefits of authority, which will be disrupted by shareholder activism (Bainbridge, 2005). Empirically, Bainbridge (2006) points out that the charter clauses increasing the control of shareholders are not provided by listed companies on the free markets, which indicates that shareholders may not value such changes. Listokin (2010) conducts an empirical analysis on the adoption of anti-takeover governance rules, which finds that the variation of altering rules and degrees of shareholder power among the states in U.S. has no effects on the outcomes.

fundamentals for economic growth. In 2006, the new *Company Law* and *Security Law*, which transplants the "best practice" corporate governance institutions in Anglo-Saxons countries, are enacted to support sustainable growth in domestic stock markets (Weng, 2012). However, these rules and standards seem to be futile, and the stock market stays fragile and plays less important role in financing business enterprises (See Figure 4.1).[46]

Figure 4.1 Domestic credit to private sector and stock market capitalization 1991 to 2011
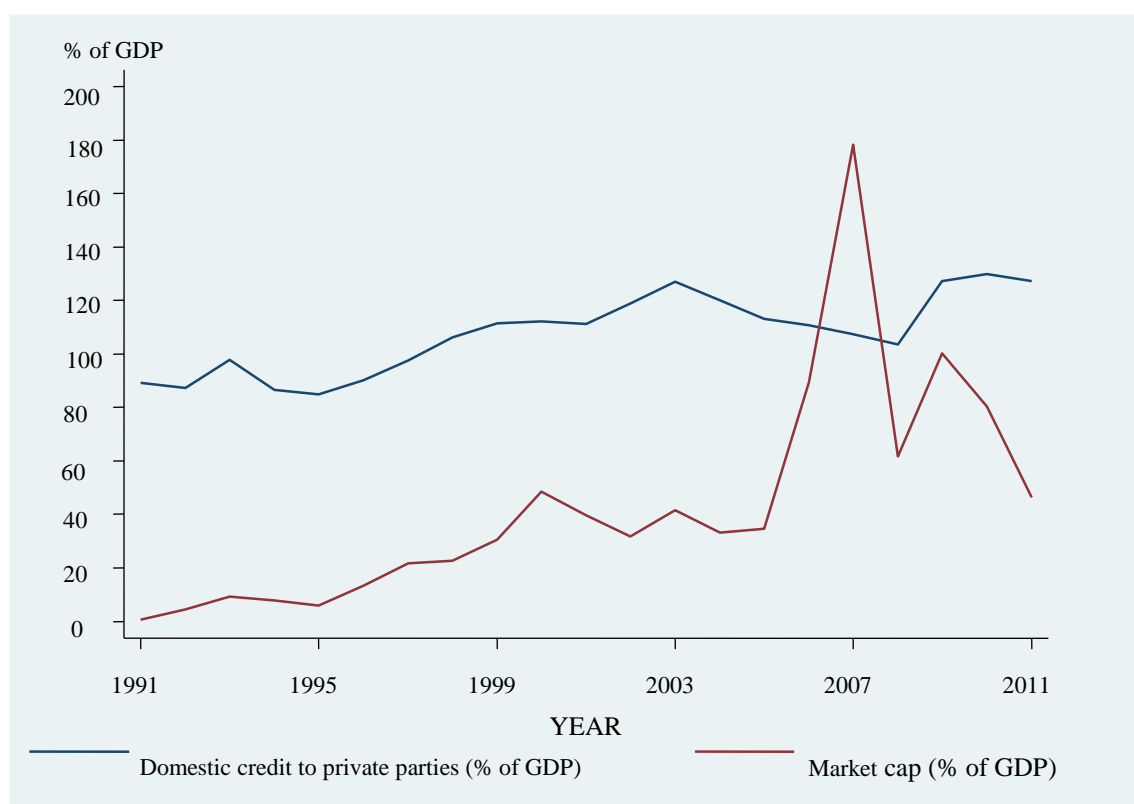


Sources: World Bank Indicators 2011

A series of studies have been carried out looking into the failure of corporate law and corporate governance system in China. Clarke (2006) observes that the problem with

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[46] During the last few years, China has been trying to establish its multi-layer financial markets catering the needs of companies in different scales. After opening two main stock exchange, *Shanghai stock exchange* and *Shenzhen stock exchange*, in the earlier 1990s, it opened the *growth enterprise market* for high-growth firms in 2009 and the *centralized over-the-counter market* for small and media high-tech firms in 2012. This paper is devoted to discussion on the CLG of those firms on the main markets, that is, on the *Shanghai stock exchange* and *Shenzhen stock exchange*.

the corporate governance system of Chinese listed firms is the high agency cost, *i.e.* some of these firms are controlled by the State and others by private parties. Those SOEs controlled by the State lacking any meaningful owners, who will monitor the management (*suoyouzhe quewei*).[47] In contrast, for those listed firms controlled by private parties, the controllers use their power to exploit the minority shareholders (*yigu duda*).

In addition, corporate rules are not well enforced. Both public enforcement by public regulators and private enforcement in the form of security litigation are limited. For example, Huang (2013) documents that the aggregated number of private litigations against the misrepresentation is around 65 cases from 2002 to 2011, which is due to the incompetency of the court system, while, at the same time, 192 administrative penalty decisions for misrepresentation are made by China Securities Regulatory Commission (CSRC).[48] Clarke (2010) further argues that not only the court system, other institutions supporting the implementation of the corporate rules, such as accounting firms or law firms as gatekeepers, are generally weak, which is in accordance with the transplant effect theory that emphasize the familiarity with and adaptation of the foreign rules (Berkowitz *et al.*, 2003a, 2003b).

I am sympathy with the great contribution of principal-agent model to the corporate governance reform in China, however, it overlooks the dual nature of public corporations discussed by Eisenberg (1988). The model of team production, also represents an important feature of the firm. The sole focus on the principal-agent

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[47] The State ownership has a complex effect on the corporate governance, which, according to Denis and McConnell (2003), represents an interesting hybrid of dispersed and concentrated ownership. See also Bolton (1995), for a discussion of the State ownership (collective ownership) on the performance of firms during the earlier phase of the reform in China.

[48] In 2002, the Supreme People's Court permitted courts to accept civil cases arising from misrepresentation, but not from other forms of market misconduct, such as insider trading or market manipulation. See *Zuigao Renmin Fayuan Guanyu Shouli Zhengquan Shichang Yin Xujiachengshu Yinfa de Minshi Qinquan Jiufen Anjian Youguan Wenti de Tongzhi* [The Notice of the Supreme People's Court on Relevant Issues of Filing of Civil Tort Dispute Cases Arising from Misrepresentation on the Securities Market] (Jan. 15, 2002). This approach is recognized by the new *Security Law* enacted in 2005.

model makes other costs and benefits overlooked by the decision maker, such as the specific investment and organizational capital. This Chapter argues that the more fundamental drawback of the current Chinese CLG system is that the mandated means and ends of corporate governance by the corporate law in China are mismatched.[49] Unlike the enabling regime of the corporate law in both U.S. and U.K., most of the articles in Chinese corporate law could not be opt-out by corporate constituencies. Hence, without touching this fundamental inefficient arrangement in corporate law, the reform aiming to protect the interests of minority shareholders is futile.

The corporate law in China is explicit about its mandatory means and ends of the governance system. The ends or objective of the firm is to maximize shareholder wealth, as measured by the share price. The Article 3 of the *Company Law* explicitly recognizes the personalhood of the firm and its own interests. In addition, article 1 of the *The Code of Corporate Governance for Listed Firms in China* in 2002 indicates that shareholders are owners of the listed firms. The two together suggests that Chinese corporate governance system still follows that shareholders are the owners of the corporate entity, hence the firm should be managed to the ends of shareholders. However, as a socialist country, its legislature and regulators could not leave interests of other stakeholders off the table. The article 43 of the 2002 *Code of Corporate Governance for Listed Companies in China* requires that directors should treat the interests of all shareholders equally, and pay attention to the interests of other stakeholders when decisions are made, which is similar to the ESV emerging recently in U.K..

In the dimension of means, firms are controlled by shareholder meeting rather than board of directors. The *Company Law* in China explicitly rejects any *de jure*

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[49] The basic framework to discuss the means and ends of corporate governance is established by Bainbridge (2002b). The studies on means of CLG try to answer the question who hold the ultimate decision making power, while the ones on ends answer the question the interests of which group(s) of corporate constituencies should prevail.

separation of ownership and control.[50] A broad spectrum of corporate decision rights are allocated with the shareholder meeting.[51] The Article 38 of *Company Law* allocates with shareholder meeting the formal authorities on the following issues: "(1) determining the company's operation guidelines and investment plans; (2) electing and changing the directors and supervisors elected by non-representatives of the employees, and determining the matters concerning their remuneration; (3) deliberating and approving the reports of the board of directors; (4) deliberating and approving the reports of the board of supervisors or the supervisor; (5) deliberating and approving annual financial budget plans and final account plans of the company; (6) deliberating and approving profit distribution plans and loss recovery plans of the company; (7) making resolutions on the increase or decrease of the company's registered capital; (8) making resolutions on the issuance of corporate bonds; (9) adopting resolutions on the assignment, division, change of company form, dissolution, liquidation of the company; (10) revising the articles of association of the company; (11) other functions as specified in the articles of association." Of these decision rights enjoyed by shareholder meeting, two are most powerful: the rights to raise capital and to make investment.

Meanwhile, the board of directors mainly performs the functions of initiation and implementation, and subjects to the direct control of the shareholder principal. Article 47 of *Company law* allocates with the board the authority on "(1) convening shareholders' meeting and reporting on the status of work thereto; (2) carrying out the resolutions made at the shareholders' meeting; (3) determining the operation plans and investment plans; (4) working out the company's annual financial budget plans

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[50] The corporate law in U.S. and U.K. differ in their attitudes towards shareholder-centric corporate law system: American corporate law adopts the manager-centric system, while British corporate law the shareholder-centric one (Harper Ho, 2010; Rock, 2013). In both countries, the corporate law recognizes director's decision rights. For example, the Delaware code requires that the corporation's business and affairs "shall be managed by or under the direction of a board of directors." See DEL. CODE. ANN. tit. 8, § 141(a) (2001). Similarly, Article 3 of the 2013 British *Model Articles for Public Companies* allocates directors with the power to manage the company's business and for this purpose "they may exercise all the powers of the company".

[51] Lin (2012) also observes that shareholder meeting enjoys broad decision power, which reduces the managerial discretion and is protected from the review of board of supervisors.

and final account plans; (5) working out the company's profit distribution plans and loss recovery plans; (6) working out the company's plans on the increase or decrease of registered capital, as well as on the issuance of corporate bonds; (7) working out the company's plans on merger, division, change of the company type, dissolution, and etc.; (8) making decisions on the establishment of the company's internal management departments; (9) making decisions on hiring or dismissing the company's manager and his remuneration, and, according to the nomination of the manager, deciding on the hiring or dismissing of vice manager(s) and the person in charge of finance as well as their remuneration; (10) working out the company's basic management system; and (11) other functions as prescribed in the articles of association."

Consequently, there is no specialization and separation of the decision roles and residual risk bearing roles within the Chinese public corporation, which is an efficient arrangement and the unique feature of such organizational form (Fama, 1980; Fama and Jensen, 1983a). Fama and Jensen (1983b) argue that the decision process could be decomposed into four steps: initiation, ratification, implementation and monitoring, with the initiation and implementation belonging to the decision management function and ratification and monitoring to the decision control function. For small and medium enterprises, decision management function is delegated to subordinate managers and the residual claimants maintain the decision control role. However, such governance structure no longer suits the large public corporations with dispersed ownership structure, and residual risk bearing should be separated from decision rights. The efficiency gains are due to the fact that decision agents no longer have to be those with both wealth and willingness to bear the risks and specialized knowledge, and the risk bearer could enjoy the benefits of diversification.

To analyze the current Chinese CLG arrangements, the framework proposed by Bainbridge (2002b) is employed to examine the means and ends of CLG in China. This paper argues that there is a more fundamental mismatch between the *de jure*

means and ends of CLG in China, which leads to the stagnant development of stock market. The corporate governance system overemphasizes the accountability dimension[52], and resides both formal (due to the *Company Law*) and real (due to the concentrated ownership structure) authority in the hands of shareholder principal of the listed corporations.[53] The agent directors lack real authority, which is crucial to encourage them to make value-increasing investments, such as relation-specific investments, and collection of optimal level of information to make efficient decisions. Baker *et al.* (1999) argue that the formal authority is always held by the principal shareholder, while the real authority is occasionally delegated to the agent directors informally, which could be retracted by principal controlling shareholders at will. As such informal contracts are never enforceable by external authorities, the principal needs to establish the reputation that such delegation will not be retracted so as to encourage the agents to invest.

The controlling shareholders[54] of Chinese listed firms seem to have little interests in establish the reputation that directors are delegated with the real authority to decide, and frequently makes the decision directly. With the concentrated ownership structure, the accountability to shareholder principal transforms to the accountability to the controlling shareholders. What makes the problem worse is that the State shareholders not only hold controlling stakes, but also controls the public policies, which are

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[52] Another dimension of the corporate governance is authority. Arrow (1974) first discusses the tradeoff between authority and accountability in decision making, and Dooley (1992) applies the framework to discussions on corporate governance.

[53] The decision authority, according to Simon (1951), means the right to select actions affecting part or whole of an organization, and is a reference point to appreciate the hierarchical structure within the firms. The formal authority is further distinguished from the real authority in corporate decisions, which is held by the parties with information (Aghion and Tirole, 1997). Even if principals are allocated with the formal decision rights, informed agents will enjoy real authority over corporate affairs if shareholders, as wealth-maximizers, have less information.

[54] Article 217 of the *Company Law* gives a definition of the controlling shareholder of Chinese firms, i.e. a shareholder holding 50% or more of the total capital of a limited liability company, or a shareholder who holds more than 50% of the total equity shares of a joint stock limited company, or a shareholder though holding less than 50% of the voting rights outstanding, enjoying a voting right large enough to impose significant impacts upon the resolution of the shareholders' meeting or the shareholders' assembly. The criterion are far looser than that employed in the academic literature, which according to Enriques and Volpin, (2007), a controlling shareholder is usually identified with the criteria that it owns more than 20 percent of a company's voting rights.

important to the success of the business enterprises. The market power of directors is even weaker considering a huge proportion of their human capital is related to bureaucratic, which depreciates quickly if they change their jobs to private sector. Agent directors seldom disobey the will of the State principal (usually the higher level government officials), which according to Marino *et al.* (2010), is an important source of real authority. As a result, the *de jure* allocation of decision rights to shareholder meeting transfers to the *de facto* real authority maintained by controlling shareholders.

The rest of the Chapter is arranged as follows: Section 2 reviews the complex ownership structure of the listed firms on Chinese stock markets, and the problem with the separation of cash flow rights from control rights. Section 3 argues that though shareholder wealth maximization is still the ends of corporate governance mandated by corporate law, ESV has emerged and should be the legitimate ends for corporate governance. In addition, Section 4 argues that the means of corporate governance of listed firms in China are shareholder control, which mismatches ends of maximizing the valuation of the firm. As both Section 3 and Section 4 discuss the means and ends of CLG, the economic theories of the firm that highly involved in these discussions are first introduced and discussed in each section.[55] And Section 5 concludes the Chapter.

## 4.2 The ownership structure of Chinese listed firms and its effects on performance

The economic reform in China aims to transform a planned economy to socialist market economy, and follows the governance system, regionally decentralized authoritarian (RDA) system, which features as the "highly centralized political and

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[55] All these models are contractual in nature and follow Coase's path-breaking paper "The nature of the firm" on why firms emerge. From his view, using price mechanism is expensive and involving transactional costs, and firms will "tend to expand until the costs of organizing an extra transaction within the firm become equal to the costs of carrying out the same transaction by means of an exchange on the open market or the costs of organizing in another firm" (Coase, 1937: 395).

personnel controls at the national level, and a regionally decentralized administrative and economic system" (Xu, 2011: 1082). The reform in state-owned enterprises (SOEs) follows the policy of *zhuada fangxiao*, *i.e.* the state only keeps control of medium to large enterprises with strategic importance and the rest are privatized. The first step of such privatization process is the corporatization of SOEs. Aivazian *et al.* (2005) investigate a sample of central government-owned national public firms and show that even without privatization, the corporatization process improves the performance of SOEs. The sources of such benefits are due to the establishment of the modern governance structure and partial delegation of authorities from the government to internal governance organs in those firms corporatized.

## 4.2.1 The share issuing privatization process

Two national stock exchanges are created to carry out the corporatization of SOEs, where the large SOEs are partially privatized through share issuing privatization (SIP), that is, a public offering of common stock by a firm with state ownership (Dewenter and Malatesta, 1997). To provide appropriate incentives to local governments and ministries, a quota system, the manifestation of decentralized economic governance approach, is employed to select the well-performed SOEs to list on the domestic markets from 1993 to 2000 (Pistor and Xu, 2005). The regional governments and ministries compete for allocation of the quota each year based on the performance of SOEs selected previously, and the competition serves as the institutional substitute for the sound legal institutions. As a result, relative competent firms are selected to list on the market. Such quota system is abolished by CSRC at the beginning of the new millennium.

The privatization process is investigated by Huyghebaert and Quan (2009), who find that the fraction of shares sold to the general public at SIP relative to the total number

of shares outstanding, positively correlates with the leverage ratio before 1999,[56] suggesting that the stock market is regarded as an alternative sources of finance at the beginning of the process.[57] After 1999, however, the proportion of public allocation is positively correlated with the investment opportunities. Across the whole period, increasing operating efficiency is never a concern for the State.

In addition, after SIP the government ownership evolves endogenously to the features of the firm and the market rather than being kept stable. For those SOEs undertaking IPO during 1994 to 1999, the five-years-post-SIP State ownership decreases from 57.34% right after SIP to 50.35 %, while the average proportion of shares held by the general public rises from 27.77 to 33.89 (Huyghebaert and Quan, 2011). The dilution of the State ownership is either through share issuance (rights issuance and seasoned equity offering), motivated by reduction of leverage, or divestment (private negotiations with non-state-owned institutions), motivated by the needs to introduce external monitors.

Due to its way of privatization, the government maintains substantial ownership of the privatized firms, and listed firms generally have a concentrated ownership. However, governmental control of the privatized firms seems prevalent across the world. Bortolotti and Faccio (2008) look into the ultimate controllers of firms in OECD countries privatized before 1997 and document that through either direct ownership, or leveraging devices or golden shares[58], governments maintain control of almost

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[56] The year is critical because the quota system is abolished and substituted by the approval system. See Huyghebaert and Quan (2011) for detailed discussion.

[57] Chen (2013) proposes a similar argument that the stock markets are used to provide new source of finance to the trouble SOEs.

[58] The golden share is defined as "the set of the state's special powers and statutory constraints on privatized companies. Typically, special powers include (1) the right to appoint members in corporate boards; (2) the right to consent to or to veto the acquisition of relevant interests in the privatized companies; and (3) other rights such as to consent to the transfer of subsidiaries, dissolution of the company, ordinary management, etc. The above mentioned rights may be temporary or not. On the other hand, statutory constraints include (1) ownership limits, (2) voting caps, and (3) national control provisions" (Bortolotti and Faccio, 2008: 2918).

two-thirds of privatized firms (the average percentage of voting rights controlled by the State around world is 52.18% in 2000).

The most prominent institutional feature of corporate governance in Chinese listed firms is its concentrated ownership structure and high stakes held by the government. Table 4.1 shows the stockholding distribution of several developed industrialized countries, among which the Italian government and banks hold the highest stakes, around 40%, in the listed firms. In accordance with the models of capitalism, the government and banks in continental Europe, such as France, Germany, and Japan generally hold significant percentage of shares in the listed firms. However, the stakes held by the government and banks in these countries are significantly lower than that held by Chinese government five years post SIP as reported by Huyghebaert and Quan (2011).

Table 4.1 International comparison of the ownership structure of listed firms

| Country | Individuals | Institutional investors | Banks and government | Holding company | Foreign |
|---------|-------------|------------------------|---------------------|-----------------|---------|
| Australia | 20% | 34% | 4% | 11% | 31% |
| Canada | 15% | 38% | 8% | 14% | 25% |
| France | 23% | 12% | 14% | 14% | 37% |
| Germany | 17% | 15% | 17% | 39% | 12% |
| Italy | 18% | 14% | 40% | 18% | 10% |
| Japan | 20% | 21% | 23% | 28% | 8% |
| Sweden | 23% | 30% | 8% | 9% | 30% |
| Netherlands | 14% | 21% | 1% | 23% | 41% |
| U.K. | 19% | 58% | 5% | 2% | 16% |
| U.S. | 51% | 41% | 3% | 0% | 5% |

The existence of the large shareholder may mitigate the agency problem between shareholder group and management (Shleifer and Vishny, 1986, 1997). However, the concentrated ownership structure, especially the involvement of the State as the controller, makes the situation different. The concentrated ownership held by the State fails to compromise the agency problem between shareholders and management, but rather government officials collude with the management exploiting minority shareholders. The next subsection describes the ownership structure of the listed firms in China.

## 4.2.2 Ownership structure of the listed firms

Since the Chinese government employs the partial privatization strategy, the governance structure of listed SOEs is far from separation of ownership and control, which is prevalent in U.S. market and first documented by Berle and Means (1932). The State holds controlling stakes in a large proportion of listed firms.[59] Holderness (2009) argues that the concept that listed firms in U.S. have dispersed ownership structure is a myth, though the insider ownership is rather small. Most of the sampled firms in his study have block shareholders, who on average hold 39 percent in aggregate (median 37 percent) and the average stakes held by the largest shareholders are 26 percent (median 17 percent), which is far smaller than the stakes held by the controlling shareholders in the Chinese listed firms. Similarly, Franks *et al.* (2001) reports that the largest individual shareholder in a given firm holds around 13.7 percent and the largest five shareholders hold 30.4 percent in aggregate in British listed firms. In contrast, most of the China's listed firms have a single dominant shareholder holding about 43% of the total outstanding shares, the second largest about 9%, and the third one about 4% (Conyon and He, 2011).

Though ownership structure of listed firms in both U.S. and U.K. shows some concentration, the listed firms in China have a quite different structure. Shares issued

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[59] Omran (2009) also reports that the State maintains on average 35% ownership of the privatized firm in the partial privatization process of Egypt.

by Chinese listed firms could be classified according to the exchange where they are listed. The most common ones are those issued in the domestic markets denominated with the local currency (*A share*). Furthermore, shares denominated by foreign currencies (*B share*) are also issued to cater the financing needs of listed firms and listed in the domestic markets. In addition, shares could be traded in Hong Kong (*H share*), Singapore (*S share*), or New York through IPO or American Depository Receipts (*N share*).[60] According to the Article 85 of the *Articles of Association of Companies Seeking a Listing outside the PRC Prerequisite Clauses*, a list of mandatory articles that firms seeking to list on foreign exchanges must adopt, "shareholders of domestic investment shares and those of foreign investment shares listed outside of the PRC are regarded as shareholders of different categories". The rights of these different categories of shares could be diverse since the shareholder meeting of different categories should be held differently.

The control rights and cash flow rights are separated in listed firms in China for both SOEs and firms controlled by private parties. The State holds a large proportion of shares of the listed firms in China, though the concentration has been reduced through the partial privatization process. The control rights arising from the State shareholding are delegated to and exercised by government bureaucrats, who hold little personal benefits in these firms, while the cash flow rights are theoretically owned by all the citizens in the country. At the same time, in private firms, the largest shareholders in privately controlled firms have a 54% (51%) mean (median) cash flow rights to voting rights of the largest owner (Fan *et al.*, 2005).

For those shares listed on the domestic markets, the ownership identities are officially classified into three categories: the State, legal person, and individual, which reflects

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[60] 243 Chinese firms have listed in the U.S. markets by 2011, which account for 73.33% of the market share among all the foreign listings firms (Ritter, 2011). Meanwhile, 194 Chinese firms (165 on the Main board and 29 on the Growth Enterprise Market) are listed on the Hong Kong markets at the end of 2010 (Luo *et al.*, 2012).

in some extent their incentives in monitoring the management.[61] The State share and legal person share are not tradable on the market before the 2005 *Split Share Reform*.[62] The non-tradable shares account for about two thirds of the total number of outstanding shares in the February 2005 (Firth *et al.*, 2006a; Beltratti *et al.*, 2012). They could be transferable to domestic institutions upon the approval of CSRC, and the share block is often transferred with a discount rather than premium (Chen *et al.*, 2008; Huang and Xu, 2009). In 2002, the State and legal persons on average hold 16.4% and 28.4% of the total shares respectively (Delios *et al.*, 2006). In contrast, the management and employees hold trivial amount of shares of the listed firms. According to Wei *et al.* (2005), the ownership of senior management and directors, is around 0.015% and employee shares account for 1.75% of total shares in 2001.

The official classification is ambiguous in that it does not reflect the ultimate controller of the listed firms. The legal person shares could also be owned by the State, since the State may be the controller of the legal person holding the shares. Delio *et al.* (2006) propose a new classification based on the identities of the ultimate owners, which includes three categories: the government shareholding, marketized corporate shareholding, and private shareholding.[63] The government holds around 11.8%, the marketized corporate 28.8%, and private parties 59.3% of the total shares. The high stakes held by the State result in that almost 27% of the CEOs in a sample of 790 newly partially privatized firms in China are ex- or current-government bureaucrats (Fan *et al.*, 2007).

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[61] The legal person is identical to institutions, which includes domestic mutual funds, insurance companies, government agencies, and other enterprises. Some of these institutions are also owned by the State, making the official classification ambiguous.

[62] The non-tradability of the State share and legal person share is the major accuse for the various corporate governance problems of China's listed firms.

[63] The government shareholding represents those controlled by bureaucrats, the marketized corporate shareholding by marketized state owned enterprises that though owned by the state but have undertaken a transition towards the market-oriented structure for profit, and private shareholding by private entities.

Even within the groups of SOEs, those controlled by the local government and those by central government are managed differently. The local government tends to grab assets from minority shareholders through related party transactions, while, in contrast, the central government provides helps to the listed firms, which benefit the minority shareholders, though both subgroups of listed firms have no difference in their operational efficiency (Cheung *et al.*, 2010). In addition, the central government as the controlling shareholders exerts greater pressure on the listed firms to maximize their profits and has performance related pay scheme for CEOs (Firth *et al.*, 2006a). Lucky, according to Fan *et al.* (2005), the voting rights and cash flow rights are not separated in listed SOEs controlled by local government, though corporate pyramids are common.[64] Such arrangement is in sharp contrast with that of private firms, which has a 54% (51%) mean (median) cash flow rights to voting rights of the largest owner (Fan *et al.*, 2005).

As a result, bureaucrats and corporate insiders tend to collude and expropriate the assets of listed firms, which results in high corruption. Further, the bureaucrats have different goals other than maximizing the value of the firm. On one hand, the political targets, such as maintaining employment rate or the social stability, could have higher priority. On the other, since the State and legal person shares are not tradable on the market, the firms are managed towards maximizing accounting-linked performance indicators, such as free cash flow, rather than market-linked ones, such as share price, as the free cash flow is easy to exploit (Cao *et al.*, 2011). Finally, even bureaucrats try to maximize corporate valuation, they invest less than optimal monitoring efforts since they do not share the success and the private costs are larger than benefits, not to mention the possibility that bureaucrats have less specific knowledge than that of the top managers.

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[64] They do not report the situation of pyramidal structure of the listed firms controlled by the central government.

However, government connection does not impose pure costs on firms, at least theoretically.[65] Listed firms connected with politics are wide-spread across the world, and this connection brings larger benefits than costs to the given firm (Faccio, 2006). Politically connected firms enjoy friendlier environment, such as paying lower tax rate and enjoying higher leverage, than their nonconnected peers, though their performance measured by accounting data is worse (Faccio, 2010). For example, Goldman *et al.* (2009) show positive abnormal return after a politically connected director is elected, which could be due to the favorable allocation of future procurement contracts. Khwaja and Mian (2005) show that politically connected firms borrow 45 percent more than those comparable firms without political connections in Pakistan, though the former class of firms has a 50 percent higher default.

The benefits of governmental connection seems to be extremely intriguing considering the highly regulated business environment. Li (1996) investigates the organizational form of the non-state sector in China and finds that the Township and Village Enterprises, the biggest part of the non-state sector, are arranged as the collective firms, whose property rights are ambiguous, *i.e.* the ownership is not clearly specified and poorly protected. To introduce the government as the co-owner of the firm, the entrepreneur gains protections from the local government to overcome the high transactional costs, such as contract enforcement, due to the market imperfection. Another case in point for Chinese listed firms is discussed by Calomirisa *et al.* (2010), who find that governmental connection is especially beneficial to firms located in the special economic zones to protect them from the "grabbing hand", where the local government discretion is large.

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[65] The discussion of the benefits of governmental connection is restricted to the given firm rather than the general benefits and costs to the society. Some of the researches seems to overlook such argument, for example, Tian and Estrin (2008: 75) concludes that "[I]n addition to preferential treatment from the government, we suggest that state-based governance may be superior to a governance vacuum under dispersed shareholding structures." However, their observed U-shape relationship between the State ownership and firm valuation could be a result of firms maximizing valuation under the constraint of current poor institution. It is quite plausible that though the given firm derives net benefits (costs) from such connection, the society could suffer from net costs (benefits).

## 4.2.3 The problem with separation of control rights and cash flow rights

The large stake held directly by various levels of government and governmental related institutions, is probably a curse rather than bless for listed companies. Clarke (2006) reports that those SOEs controlled by the State lacking any meaningful owners, who will monitor the management. As a result, the State ownership is documented with lower market valuation. The State as the controlling shareholder is shown to have negative effects on the performance of listed firms (Sun and Tong, 2003; Liu and Sun, 2005). [66] The Tobin's Q of the listed firms has a significantly negative relationship with the percentage of State shares (Wei *et al*., 2005). Chen *et al.* (2008) further show that though the State tend to transfer the control of listed firms with poor profitability to private parties, these firms managed by private parties improves their performance. In contrast, the control transferred to state entities generates no performance improvement.

Generally speaking, The State control reduces the external market constraints on the governance of listed SOEs. First, public regulators lack appropriate incentives to monitor and enforce regulations against government related listed firms. [67] When the State maintains high influence on the appointment of directors, who are usually the bureaucrats or civil servants, these directors are lack of incentives and expertise monitoring the management. In addition, governance reform proposed by public regulators is deemed to have fewer influences on government-related firms, as these rules are not enforced against them. Berkman *et al.* (2010) study three consecutive corporate governance reforms aiming at improving protections to minority shareholders between 2001 and 2002. In their event study, the shares of listed firms

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[66] Tiana and Estrin (2008) show that this relationship is U-shape and non-monotonic. Exceeding certain threshold, the State ownership increases with the valuation of the firm.

[67] Also, the State acts as the trustee holding the dominant stakes in SOEs also lacks incentive to monitor management. Lin (2012) points out that government officials tend to collude with corporate managers, and hence the agency problems within SOEs are two folds: i.e. between manager and shareholder, and controlling shareholder and minority shareholder.

with government connections show no positive abnormal return, in contrast with those of privately controlled firms, which enjoy high abnormal return after the reform.

Second, the SOEs tend to overinvest compared to their peers suffering from market constraint due to the soft budget and agent conflicts between minority shareholders and majority shareholders, who may maximize the assets under its control. On one hand, private firms have difficulties in accessing the capital markets. Chen *et al.* (2011) document the discrimination of the public regulators on access to the capital market for non-state-owned firms. At the end of 2008, there were 1,593 listed firms in China, of which 713 were controlled by private parties. However, the total market capitalization of these 713 firms accounted for only 21% of the capitalization of the stock markets, hinting that most of them are small.

On the other, Chen *et al.* (2011) find that, generally speaking, state ownership reduces the sensitivity of investment expenditure to investment opportunities, which means that SOEs tend to overinvest. They employ the political connectedness of CEO as the proxy for government intervention and found negatively related to the sensitivity of investment expenditure in the SOEs. But the negative effects of political connectedness of CEO is not present in non-SOEs, which implies that non-SOEs hire politically connected CEO based on efficient considerations. In addition, Liu and Siu (2012) derive the implicit discount rate used to evaluate investment based on the inter-temporal costs and benefits of investment, which is around 15.8% higher for those non-SOEs than that for SOEs. The high discount rate means that non-SOEs prefer current consumption more than future one due to cash generated by the investment and hence *ceteris paribus*, invest less than their SOE peers.

Finally, the State control distorts the internal corporate governance mechanism of listed firms and malfunctions the board of directors. For one thing, those politically connected directors appointed by the government shareholders are hard to remove

when they behave poorly.[68] The empirical evidence documents a significantly inverse relationship with the firm performance and CEO turnover (Firth *et al.*, 2006b; Kato and Long, 2006; Chang and Wong, 2009; You and Du, 2012). But the State ownership tends to compromise such link and the State is reluctant to dismiss the CEO when the firm performs poorly (Kato and Long, 2006), indicating that such dismiss is not in a timely pattern. Usually, the top management connected with State is protected from the threat of removal and hence suffers from no effective monitoring (Shleifer and Vishny, 1989). It is likely that the top management of the listed firms is selected based on their ability to realize the political agenda or relationship with the higher government officials, which renders the State to be reluctant to remove the selected management when they behave poorly.

Based on the behavior theory of organizational search that firms focus on targets in performance evaluation and shareholders tend to discipline the top management only if the firm fails to meet the performance target, Shen and Lin (2009) employ the industrial median profitability as the reference point and find that the inverse relationship between profitability and CEO turnover of SOEs is conditioned on the given firm fails the performance target, that is, in the subgroup of firms outperforms the median firms, the CEO turnovers have no relationship with profitability. This research design is also carried out by Chang and Wong (2009) on study of forced CEO turnover, which uses whether the firm incurs any financial losses as the reference point and find similar results. Finally, You and Du (2012) identify the political connectedness of the individual CEO, and suggest that CEOs with political ties are less likely to suffer from forced removal in a sample of listed firms from 2004 to 2008. As a result, for newly listed firms, those with politically connected CEOs (former or current officers of the government or military) consistently underperform those similar firms without a politically connected CEOs (Fan *et al.*, 2007).

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[68] Chen *et al.* (2008) find that when a change of control transaction is carried out by the firm, the change in CEO has a positive effect on the post-transaction performance of the listed firms.

For another, directors lack appropriate incentives to manage the firm. Though China's listed firms have two-tier boards: a main board of directors and a supervisory board, these governance mechanisms seem to fail to discipline the corporate insiders.[69] The compensation package of the executives are not set through arm's length bargaining between the board and executives, but rather follow the pay scale of the civil servants. Conyon and He (2011) find that the State control seems to compromise the executive compensation of the directors. CEO share ownership incentive is lower when the State is the ultimate owner of the firm.

For those listed firms controlled by private parties, the separation between control rights and cash flow rights is still a prominent problem, which, however, is ascribed to the stockholding schemes, such as pyramidal ownership, and adversely affect the pay-performance relationship. The controlling shareholders tend to set CEO compensation to their private interests rather than the wealth of minority shareholders. A study conducted about the listed firms on Hong Kong markets sheds light on the private firms, which are controlled by founding families. Cheung *et al.* (2013) document that board of directors closely related to their controlling shareholders are discounted by investors and have lower valuation. Such connectedness is associated with a poorer corporate governance practice.

The concentrated and governmental ownership of listed firms exacerbates the mismatch between means and ends of CLG. Unlike in countries with dispersed ownership structure, which results in relative weak shareholders, shareholder control of corporate decisions entrench the controlling shareholders, who could exploit the minority shareholders easily under current corporate governance regime. Next section reviews the ends of Chinese corporate law and compares it with the ESV emerged recently.

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[69] The two-tier board system mimics the governance strategy in Germany, where the supervisory board consists of equal half of shareholder-elected and employee-chosen directors in companies with employees more than 2000.

## 4.3 Ends of corporate law and governance

Though nearly all models of CLG admit that the ultimate objectives of the firm should be maximization of the social welfare, it is too broadly defined to provide any meaningful guidance to corporate practice without resorting to any intermediate objectives. As a result, CLG scholars have been naming more specific goals that firms should pursue, such as shareholder wealth maximization and stakeholder wealth maximization, which could be dated back to the famous debate between Professor Berle and Professor Dodd.[70]

Nearly all the academic discussions caution of assigning multiple goals to the firm. Jensen (2001: 34) states that "it is logically impossible to maximize in more than one dimension at the same time unless the dimensions are what are known as 'monotonic transformations' of one another." The multiple goals of the firm also "leave managers so much discretion that managers could easily pursue their own agenda, one that might maximize neither shareholder, employee, consumer, nor national wealth, but only their own" (Roe, 2001: 2065).

Before looking into details of legal arrangement, it is important to first answer the question what is the firm?[71] For lawyers, the definition given by Professor Davies is a good starting point, "it is an organizational form, provided by the law, through which the suppliers of the various inputs necessary to achieve a certain objective can come together and coordinate their activities" (Davies, 2010: 2). Hence, the corporate law is designed to coordinate three groups of constituencies: shareholders/members, directors and senior managers, and the creditors. Kraakman *et al.* (2011), in addition,

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[70] See Bratton and Wachter (2008) for a detailed discussion on this debate, which points out some misunderstandings in the contemporary debates.
[71] The economic theories of the firm are proliferative. Gibbons (2005) defines and compares four theories trying to explain the boundary of the firm, that is, the "make-or-buy" problem, which are labeled as the "theory of the firm" in the economic literature. These theories share two common features: first, a theory of the firm must define "integration", and it has to show why it matters (i.e. what tradeoff exists between integration and non-integration). The vertical integration is implicitly assumed as the unification of control rights.

argue that corporate law provides a standard legal form, the corporation, with five core-attributes: legal personality, limited liability, transferrable shares, delegated management under a board structure, and investor ownership, and try to reduce the ongoing costs of organizing business through corporate form.

## 4.3.1 Principal-agent theory and shareholder wealth maximization in China

### 4.3.1.1 Principal-agent theory of the firm

The principal-agent theory of the firm has a great influence on CLG thinking. It argues that the firm is a complex set of contracts[72] or "nexus of contracts" (Jensen and Meckling, 1976). The theory rejects the concept of corporate personality as anything meaningful and argues that the corporate entity is just for convenience, which implies that the firm is not a separate corporate entity or has no corporate personalhood.[73]

According to the principal-agent theory, corporate constituencies hold two types of contractual claims to the firm: One with the fixed payoff assuming fixed risks, such as employees and suppliers; the other with the residual payoff assuming residual risks, and is the equity holders. The asymmetric information between the principals, usually the residual holders, and the agents, the delegated management, determines the nature of the firm. Hence, the principal-agent theory argues that the firm exists to minimize

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[72] It would be beneficial to clarify the meaning of contract, which in ordinary language means an agreement, while in law, means legally enforceable promise. However, the "nexus of contracts" approach may not mean either of the two meanings, but the "reciprocal agreements" (Eisenberg, 1998). Hart (1989: 1764) distinguishes the economic and legal perspective on contracts: "Economists tend to view contracts as relationships characterized by reciprocal expectations and behavior; lawyers consider the enforceable legal duties implicit in such relationships and look for formalization through the standard indicia of contract formation, such as offer and acceptance."

[73] See for example, Bainbridge (1993: 1427) "someone owns each input, but no one owns the totality." See also Easterbrook and Fischel (1989: 1425-1426), "'Limited liability' means only that those who contribute equity capital to a firm risk no more than their initial investments-it is an attribute of the investment rather than of 'the corporation' … It is convenient to think of the firm as, an 'it'".

the costs in these agency relationships so as to survive on the competitive product markets (Fama, 1980).[74]

The "nexus of contracts" theory of the firm facilitates the contractarian model[75] of CLG, which is still the dominant model in the contemporary CLG scholarship. The model rises as a response to the governmental over-regulation in business affairs during the early 20th century. Brudney (1985) regards that the notion of contract was to disconnect the enterprise and its "owners" from dependence upon the state authority for their power, and therefore from the state regulation.[76] Accordingly, different organizational forms, such as public corporation or partnership, are regarded as different types of "standard forms of contracts", rather than organizational forms created by the government.[77]

Gulati *et al.* (2000: 894) argue that the firm only consists of "connected contracts", *i.e.* the "interrelating agreements and relationships among the participants in a business venture". As a result, the legal analysis of the business organizations should start from the features of different corporate contracts rather than from the different legal categories, such as partnership and corporation (Klein, 1982). The corporate law

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[74] Jensen and Meckling (1976) define the agency costs as the sum of the monitoring expenditures by the principal, the bonding expenditures by the agents, and the residual loss due to the divergence between agents' decisions and those maximizing the welfare of the principal. The agency problems with respect to firms are those between managers and shareholders, controlling and minority shareholders, and shareholders and other corporate constituencies, such as creditors (Kraakman *et al.*, 2011). The most prevalent agency problem in U.S. listed firms is the one between shareholders and management due to separation of ownership and control. However, Rock (2013) argues that the agency problem between the management and the shareholders are significant reduced by the market mechanisms in U.S..

[75] However, not all the contractarian models share the "nexus of contracts" view of the firm. For example, Gulati *et al.* (2000: 894) argues "there are no firms, no predetermined hierarchies, no organizations with personalities of their own, and no a priori notions of ownership or control; there is no shareholder or managerial primacies, and no centralizing 'nexus'."

[76] Similar view is shared by Bratton (1988: 432), who claims that "[t]he nexus of contracts assertion has a political aspect. The assertion matches the firm's economic substance with individual actors and their respective contracts and classifies the firm's state created components as fictions. The assertion thereby suggests limits on the state's legitimate role in the corporate firm's life."

[77] As a result of viewing the firm as "nexus of contracts", "the personalization of the firm implied by asking questions such as 'what should be the objective function of the firm' or 'does the firm have a social responsibility' is seriously misleading" (Jensen and Meckling, 1976: 311).

should facilitate the private contracts and impose no limitation on the freedom of contracts. Hence, corporate law shall take an "enabling" approach[78] by providing a set of default "standard-form" provisions[79] to fill the gaps left by the incomplete contracts between corporate constituencies,[80] which could easily be opt-out by corporate charters and bylaws (Klein, 1982; Butler, 1989; Easterbrook and Fischel, 1989).[81]

## 4.3.1.2 Shareholder wealth maximization and its application in Chinese corporate law

The shareholder wealth maximization as the purpose of the corporation, *i.e.* directors should maximize the wealth of the shareholders, is still the dominant view in academics.[82] It is proposed as a cure to the agency problem due to the separation of ownership and control. The principal-agent model argues that the shareholder should be the exclusive beneficiary of the director's fiduciary duty, who should manage the firm to maximize the wealth of the shareholders, that is, the price of the shares. The argument follows the trust metaphor and assigns the position of the beneficiary of the

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[78] Easterbrook and Fischel (1989: 1418)'s illustration on corporation and corporate law "The corporation is a complex set of explicit and implicit contracts, and corporate law enables the participants to select the optimal arrangement for the many different sets of risks and opportunities that are available in a large economy. No one set of terms will be best for all; hence the 'enabling' structure of corporate law."

[79] Listokin (2009) argues that default rules indeed enhance the corporate governance, though they could be opted out. Anti-manager rules are more easily opted out by the firm.

[80] For example, Easterbrook and Fischel (1993) comment that the director's fiduciary duty should be designed to fill the gaps left open by the contractual parties and reach the results that parties would have bargained for had they anticipated the issues and been able to contract cheaply.

[81] The argument is not without criticism. Brudney (1985) opposes to the assumption that contractual parties are fully informed about various costs and benefits of corporate contracts, and hence the completely free from government intervention in corporate affairs is not appropriate. Bebchuk (1989) focuses on a particular restriction of corporate law on corporate contracts, the amendment of corporate charters. He points out that unlike the initial charter the charter changes require the board's initiation and majority shareholders' approval, which could result in adoption of value decreasing corporate charter terms.

[82] Gelter (2013) argues that the rise of shareholder wealth maximization policy is due to the change of pension system from the defined benefits to defined contribution, which makes the pension directly relates to the investment in capital markets rather than specific firm. Such change builds the political foundation for the norm, which is favored by the middle-left voters.

director's fiduciary duties to shareholder groups, which offers shareholders with protection from the contractual imperfections.[83]

The listed firms in Chinese stock markets are mandated to maximize shareholder wealth, which, however, are due to the premise that shareholders are the owner of the listed companies, and is sometimes referred as the "property" theory (Allen, 1992; Allen *et al.* 2002).[84]   The article 1 of the 2002 *Code of Corporate Governance for Listed Companies in China* indicates that the shareholders are owners of the firm. The argument that shareholders are the owners of the firm is powerful, which directly justify both maximizing shareholder wealth and shareholder collectively control of the firm.[85]   The straight observation tells that shareholders provide fund for the firm and hire directors for daily business management. They delegate the decision rights to directors and have power to elect and replace directors. As a result, the only "social responsibility of business is to increase its profits (Friedman, 1970: 32-33)".

However, this view is under severe attack now. The "nexus of contracts" model explicitly rejects that shareholders are owners of the corporation, since the nexus could not be owned.[86] They only own corporate shares, a type of corporate securities, which give shareholders the proprietary right to dividends declared by board of directors.[87] Ireland (1999: 47) puts forward that "[T]he share is a particular and distinctive form of money capital; property in the form of a claim on the company's profits." The option theory developed by Black and Scholes (1973), who prove that a

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[83] However, it is often argues that directors are too close to the management or without enough expertise and incentives to monitoring the management. To overcome this drawback of board, Gilson and Kraakman (1991) argue to form a professional outside director industry, which specializes in monitoring the corporate management. The board then may comprise three groups of directors: the inside management directors, the outside directors nominated by management and the professional outside directors.

[84] See Stout (2002) for detailed examination of the various defendant arguments for the shareholder primacy view.

[85] See Velasco (2010) for defend of the concept that shareholders are owners of the firm and the various derivative arguments.

[86] A more radical contractual view even rejects the firm as the "nexus", see Gulati *et al.* (2000).

[87] For example, Fama (1980) points out that "the 'ownership of the capital' should not be confused with ownership of the firm."

firm's equity is equivalent to a call option on the firm having a strike price equal to the face value of outstanding debt, further undermines the concept that shareholders are owners. Hence, it is also legitimate to argue that the debt holders own the firm and issue a call option to corporate shareholders, who could buy the firm by paying out the outstanding debts (Blair and Stout, 2001).

A more sophisticated argument put forward by the "nexus of contracts" model bases on efficient considerations. Shareholders are regarded as the sole residual claimants[88] in contrast to those constituencies hold fixed claims to corporations. They get paid after all other committed fixed claims, such as wages and salaries to employees and management, and interest and principal payments to bondholders, are met. Unlike other parties, the residual claimants lack such contractual protections.

In addition, a rational shareholder will weigh the costs and benefits of making informed decisions on corporate issues. The costs of collecting information and participating in the decision process is high, considering the complex business problems involved in most public corporations. In contrast, the benefits of informed action are quite low and shared among shareholder group, if the shareholder is a minority one.[89] Thus, collective action and free ride problem will make them rationally apathetic, *i.e.* they would act passively and vote with their feet if they are not satisfied with the management.

Hence, the ownership-like rights, the rights to elect directors and be the beneficiaries of the fiduciary duties[90], are valued highest by shareholders due to their role in

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[88] The residual claimants are those constituencies in the firm, who bear the residual risks, which according to Fama and Jensen (1983a: 328), is the "difference between stochastic inflows of resources and promised payments to agents-is borne by those who contract for the rights to net cash flows."

[89] Attenborough (2013) argues the British shareholders just fit into this framework.

[90] Macey (1998) argues that if the firm is seen as "nexus of contracts", it would be inconsistent if the directors hold fiduciary duty only to shareholders, who are no different from other contractual parties of the firm. Hence, he suggests that fiduciary duties are only default rules and could be changed by contracts.

assuming the residual risks and passivity in corporate management. Through the hypothetical bargaining process, these rights should be allocated to shareholders who value such rights highest (Easterbrook and Fischel, 1991; Coase, 1960)[91].

However, there are some self-contradictory features with respect to the nature of the firm assumed in the Chinese corporate law are in conflict. The Article 3 of the *Company Law* recognizes the legal personalhood of the company and the property rights it holds on its various assets. The article is in accord with the argument proposed by Blair and Stout (1999) that shareholders give up their property rights when the firm is incorporated. Such view is further illustrated by the Blair (2003), who argues that the locking of capital is a major feature of listed firms. As a result, shareholders no longer hold property rights over the assets of the firm, and should not own the firm. It is also counter-intuitive that an independent legal person can be owned by someone else.

### 4.3.1.3 Criticisms of shareholder wealth maximization

The efficient justifications are also criticized from several perspectives. Some commentators argue that dispersed ownership and passive shareholders are no longer valid assumption for the contemporary American stock market. Black (1990) argues against shareholder passivity, and points out that the institutional investors are growing more powerful and now actively involves in corporate management, who have the advantage of economy of scale due to their professionalizing in investment. Rock (2013) share the similar view that shareholdings are relatively concentrated, since the largest 100 money managers together hold nearly 60% of all stocks. It is time to worry about the governance of the coalition among these largest funds, which have significant influence on the decisions of listed firms.

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[91] Brudney (1985) doubts the efficiency of the shareholder bargain and points out that scattered stockholders cannot, and do not, negotiate with owners who go public over various terms of the contracts, so are they isolated from decisions as election of the directors.

In addition, considering the implicit contracts between the firm and its various constituencies, the shareholders do not seem to be the only residual claimants (Stout, 2002). As noticed by Zingales (2000), for constituencies other than shareholder, they do not hold the contingent contracts specifying all the possible future outcomes, that is to say, their contracts are incomplete and their pay-off is also affected by the decisions of the corporation. It would be inappropriate to assume that they are indifferent to the management of the corporation, since they are not protected for all possible losses.

Finally, Fisch (2005) argues that shareholder wealth maximization is a much narrower welfare concept than the valuation of the firm, and hence the treatment with shareholder wealth as the proxy for efficiency of CLG is inappropriate.[92] Moreover, the commonly used proxy for shareholder wealth, the share price, in the empirical studies could be biased from the fundamentals of the listed firms. As noted by Stout (2005), the argument that stock markets are efficient, *i.e.* security prices always fully reflect all available information, is compromised by modern behavior finance studies.[93] The limits of arbitrage due to noise trader or irrationality, may result in share prices biasing from the fundamental of the firm (Gilson and Kraakman, 2002).

Shareholder wealth maximization could generate considerable negative effects on the society, especially when the management focuses on short-term profits that may erode the long-term growth prospect (Anabtawi, 2005; Stout, 2013). In some circumstances, the interests of stakeholders are in conflict with each other. Adler and Kahan (2013) point out that the interests of shareholders and those of creditors sometimes conflict. In addition, it has been recognized that shareholders exploit other constituencies

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[92] Stout (2005) also shares such view and regards the popularity of shareholder wealth maximization is a result of the long for an accurate, objective, and easy way to calculate corporate performance.

[93] The concept of efficient market is attributed to the Noble Price Laureate Eugene F. Fama. In a survey article, Fama (1970) discusses three forms of efficient markets. For weak form efficient market, the share prices incorporate all the historical information. For semi-strong form one, the share prices incorporate all the public information. For strong form one, the share prices incorporate all available information, even the private one.

contributing to the corporation by rejecting to honor the implicit contracts between firms and stakeholders in the situation of hostile takeover (Shleifer and Summers, 1988).[94] Finally, Armour and Gordon (2013) argue that companies with systemic importance focusing only on share prices may fail to take the negative costs they levy on other companies into consideration.

Though shareholder primacy norm is regarded as an important norm in U.S., several commentators still finds it difficult to apply to other countries. Roe (2001) argues that shareholder primacy norm applied in U.S. has a root in its competitive product markets. For less competitive markets, directors trying to maximize the wealth of shareholders produce less than efficient amount and maintain the monopoly price, which results in welfare loss to the society. The inefficiency is not overcomed by competitive capital markets.

## 4.3.2 Property rights theory of the firm and enlightened shareholder value

A new concept of the objectives of corporate governance, ESV, deriving from shareholder wealth maximization becomes more popular in these years, which, according to Jensen (2001: 9), focuses "attention on meeting the demands of all important corporate constituencies, specifies long-term value maximization as the firm's objective." It recognizes that to maximize long-term value of the firm, managers need to tradeoff among the interests of corporate constituencies, which includes sacrificing short-term share prices. This view of maximization long-term value of the firm is congruent to the property rights theory of the firm. Though the theory is still contract in nature, it recognizes that the firm is comprised of the assets it owns. In addition to the physical assets, the organizational assets are also an important

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[94] Following the hostile takeover movement, a series of legislative acts authorizing directors to take the interests of stakeholders into consideration when they make decisions (entity conception) are adopted in 28 jurisdictions in U.S. (Allen, 1992: 276). See a debate on this issue. Green (1993) on "multi-fiduciary stakeholder", and Bainbridge (1993) objects his idea, and argues for shareholder wealth maximization.

part of the firm, which provides a rationale to protection of the interests of stakeholders.

The concept of property needs to be clarified first, which according to Honoré (1961) is the "greatest possible interest in a thing which a mature system of law recognizes". There are two governance models of property rights, *i.e.* a bundle of *in personam* rights (henceforth *in personam* rights) and *in rem* rights (Merrill and Smith, 2001). The concept of "*in personam* rights" is contractual in nature, which is adopted by contemporary law and economic scholarship. Such view of the property rights directly specifies the governance of use rights between specified individuals, and is accredited to Coase (1960), who argues that where contracts between private parties are feasible, property rights serve as the baselines for the contractual arrangement, while contracts are infeasible, the property rights should duplicate the allocation of use rights that would be reached if contracts are feasible.

However, Smith (2002) argue that just because Coase's focus on bilateral disputes to simplify the model, the *in personam* rights concept abstract away from the "indefinite and numerous" feature of *in rem* rights, which is popular in civil law countries. In the *in rem* rights view, the property right governs the relationship between a person and a thing, and is conceived as the right in a thing good against the world, which facilitate the use and enjoyment of particular resources. As a result, the governance strategy takes two steps: first, it identifies the owner of the particular "things", and second, the owner determines which individuals could enjoy which use rights of the "things".[95]

### 4.3.2.1 Property rights theory of the firm

Though Coase (1937) suggests that haggling costs are avoided within the firm because bargaining is replaced by authority, he fails to provide the source of such

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[95] Chang and Smith (2013) compare the concept of property rights in both civil and common law system and argue that in civil law system with the *in rem* rights view, it is always important to indentify the owner of a thing, but in common law system with the *in personam* rights view, the notion of ownership could be extended to the holder of any interest.

authority and is criticized by Alchian and Demsetz (1972) who argue that the presumed power within the firm has no difference from that derived from the market contracts. Property rights model of the firm proposes that the source of the authority over internal hierarchy is due to the physical assets of the firm. The theory also has a contractual nature, yet differs from contractarian view of the firm, which views the firm as an empty concept. It starts from the assumption though contractual parties could reach agreements upon the division of the surplus *ex post*,[96] these contracts are incomplete.

The property rights model takes the *in personam* view, which is manifested in its treatment with the concept of ownership.[97] Ownership is identical to the possession of residual rights of control over the asset, that is, "the rights to use the asset in any way except to the extent that specific rights have been given away in an initial contract (Hart, 1988: 124)".[98] So defined ownership influences the *ex ante* incentives to make firm-specific investments[99], and hence the boundaries of the firm[100]. The party with ownership will make overinvestment because he could exploit the residual profits, while the parties being acquired will make under-investments to avoid exploitation by the owner.

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[96] The theory differs from the Transactional Costs Economics (TCE), which argues that the *ex post* opportunism is the major costs to market contracts. However, this difference is obscured by two recent works of Hart and Moore (2007) and Hart (2008), who integrate the non-contractible division of the *ex post* surplus. They distinguish between perfunctory performance (performance within the letter of the contract) and consummate performance (performance within the spirit of the contract). The difference between the two types of performance lies in that the former could be enforced by courts, while the latter not. As a result, the long-term contract becomes a reference point for contractual parties.
[97] It should be noticed that the concept of ownership involved in property rights model is different from the one in the sense of entitlement to an asset's profit streams.
[98] The ownership is equivalent to the power to exercise control (Grossman and Hart, 1986), and confers the owner with the residual control rights to decide all usages of the asset in any way not inconsistent with a prior contract, custom, or law (Hart, 1995).
[99] The specific investments could be reciprocal: the owner of the assets needs agents with specific investments to manage the assets. Hence, once agents accumulated specific investments, and they may have power over the principal.
[100] The property rights model predicts that the party making important firm-specific investments should own the assets.

Without ownership, *i.e.* using market contracts, the firm could only fire the contractor together with the productive assets. But under integration, the firm could exclude the individual employee from the productive assets, and establish authority over these employees. Hart and Moore (1990: 1121) conclude that "a person will have more 'control' over an asset's workers if he employs them (*i.e.*, owns the asset they work with) than if he has an arm's-length contract with another employer of the workers." The above theory leads to the view that the firm is a collection of physical assets (Hart and Moore, 1990).

A related reflection of such theory in corporate law is what Hansmann and Kraakman (2000) propose as the "affirmative asset partitioning", which argues that once incorporated, the corporate assets is separated from the personal assets of the shareholders, and the personal creditors of the shareholder are ranked behind the creditors of the corporation. Hansmann and Kraakman (2006) regards that the partition function facilitated the rise of organizational form, company. Armour and Whincop (2007) argue that such arrangement of corporate law gives the proprietary protection of corporate assets to restrict unauthorized dealings by those sharing the entitlements of ownership of assets. As a result, the firm is not an empty nexus, but holds proprietary rights over its assets.

However, Rajan and Zingales (1998b) argue that the concept of ownership alone may induce negative effects on relationship-specific investment. If multiple agents are granted access to the assets, they will overinvest "in trying to grab the lucrative returns from the more critical or higher value added tasks A, while neglecting the socially necessary, but less rewarding, task B" (Rajan and Zingales, 1998b: 415). In contrast, they propose "access"[101] as the way to allocate authority. The agents who get access to a particular asset get the opportunity to specialize their human capital in the resource and make themselves valuable. Hence, agents derive power from their

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[101] Access is defined as "the ability to use, or work with, a critical resource" (Rajan and Zingales, 1998b).

relationship specific investment. In addition, the implicit contracts, which by definition are informal and could not enforceable by courts, involved in developing these "access" are important assets of the firm. As a result, the reputation for honoring such implicit contracts is important to form implicit contracts with other constituencies in future.

Consequently, it is too narrow focusing only on the tangible assets (such as physical assets) and intangible assets, such as intellectual property or trademark as the sources of authority within the firm as advocated by Hart and Moore (1990). Rajan and Zingales (1998b) argue that the organizational assets due to these implicit contracts are important assets of the firm, which also generate authority over the contractual parties.[102] The analysis broadens the concept of the entity to including the parties who have access to these assets into the corporate entity. Zingales (2000) regards the value of implicit contracts between the firm and its constituencies as the reason why a firm is worth more than the sum of all its component assets.

### 4.3.2.2 Stakeholder interests

As a result of the above discussion, it is obvious that the interests of stakeholders need to be considered to maximize the long-term value of the firm.[103] Freeman *et al.* (2004: 365) argue that the shareholder wealth maximization norm "involves using the prima facie rights claims of one group -shareholders- to excuse violating the rights of others." The interests and benefits of all persons or groups with legitimate interests in a firm are equally important.

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[102] Earlier legal scholars have also emphasized the importance of organizational assets, for example, Bratton (1989: 411) comments on the contractual view of the corporate law and offers that "It includes not only the discrete, arms-length exchanges that constitute the new theorists' corporation, but also the managerialists' hierarchical structures."

[103] Commentators supporting stockholder interests deem stakeholder-oriented corporate governance problematic. Macey (1993) summarizes the counter-argument to making stakeholders the beneficiaries of the director's fiduciary duty. The stakeholder theory imposes too many masters over the directors. He points out that the rise of the stakeholder argument is in response to the tide of hostile-takeover during the 1980s, where the shareholders are winner at the expense of the stakeholders. Allen (1992) also shares the similar view, and regards the takeover movement puts forward a totally different issue from any day-to-day decision.

One of the problem facing the stakeholder theory is lack of a precise definition of the stakeholder. Freeman (1994: 46) defines the stakeholders as "any group or individual who can affect and is affected by the achievement of the organization's objective." This is a quite broad definition, which recognizes that the interests of all those affected by company's decisions should be considered when such decisions are made. The stakeholders of a company includes, but not restricted to, shareholder group, and other parties, such as employees, suppliers, creditors, community, environment and the State. A much narrower definition only includes stakeholders "on which the organization is dependent for its continued survival" (Freeman and Reed, 1983: 91).[104]

Some of the commentators employ a dichotomy approach contrasting the interests of stakeholders and stockholders, which reflect the difference of the implicit models underlying the value creation. Stakeholder theory emphasizes that economic value is created by people who voluntarily come together and cooperate to improve everyone's circumstance, which reflects the benefits of horizontal cooperation. As emphasized by Williamson (2005) that governance is concerned with maintenance of the going-concern value of contractual relations. Rather, the shareholder value maximization only focuses on the benefits of vertical cooperation within the firm. Freeman *et al.* (2004) point out that it is wrong to place the interests of shareholders in opposition to those of the stakeholders, as shareholders are still part of the stakeholders. Though in certain situations, the stockholders' interests are in conflict with those of other corporate constituencies, most of the time they are in alignment. Corporate management catering the interests of stakeholders could make a large pie to share.

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[104] A more detailed framework employed to identify stakeholders is provided by Mitchell *et al.* (1997), which bases on the power, legitimacy and urgency of stakeholders to the corporation.

The interests of stakeholder is congruent to the model of the firm proposed by Rajan and Zingales (1998b), who argue that the firm comprises both the assets created by explicit contracts and organizational assets created by implicit contracts. This is a broader view of the firm based on the one developed by Grossman and Hart (1986) and Hart and Moore (1990), who argue that the physical assets comprising the firm generate authority to its owner, *i.e.* the shareholders holding residual control rights.

### 4.3.2.3 The rise of enlightened shareholder value and its application in the Chinese corporate law

The concept of ESV is actually a variant of shareholder wealth maximization, which takes the interests of stakeholders into consideration so as to maximize the long-term valuation of the firm. According to Harper Ho (2011), the central elements of ESV in U.K. are " (i) an explicit focus on long-term shareholder value as the goal of the corporation; (ii) a requirement that corporate directors and officers consider the effects of their decisions on "extended stakeholder constituencies," financial and non-financial, that are referenced in Section 172; and (iii) a rejection of changes to the corporate decision-maker (*i.e.*, the board with shareholder oversight) or the rules that give shareholders monitoring and enforcement rights not afforded to other stakeholders."

The legislature success of ESV is a response to a series of review of the Company Law in U.K. by the Company Law Review Steering Group, and the final report *White Paper Modernising Company Law*. In the White Paper, it explicitly stick to the traditional idea that the primary duty of a company director is to maximize value for the company's shareholders. In addition to the shareholder value, it further argues that the interests of employees, customers, suppliers, and local residents, as well as the environment and public opinions, all had to be considered when judging what was in the interests of shareholders.[105]

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[105] The White Paper on Modernising Company Law (2002), pp.7

Such movement towards catering stakeholders' interests successfully make the ESV in the section 172 of *Companies Act 2006* in U.K., which define the general duty of directors.[106] The section still gives priorities to the interests of its member, *i.e.* shareholders. However, the section requires that the shareholders as a group should benefit from the success of the firm, rather than any particular subgroup of shareholders. In addition, it recognizes that the success of the company depends on various inputs of its constituencies, whose interests should be considered when making decisions. To disclose the quality of directors following the Section 172, Section 417 in addition requires that directors must make a business report concerning how their duties under the section are performed.

The protection of stakeholder interests also emerges in the rules of Chinese corporate law. The Article 43 of the 2002 *Code of Corporate Governance for Listed Companies in China* requires that directors should treat the interests of all shareholders equally, and pay attention to the interests of other stakeholders. Furthermore, the article 33 of *Company Law* mandates that directors hold fiduciary duties to the company and all its shareholders, and should maximize the interests of the company. A more fundamental question is how to define the interests of the company. According to the "nexus of contract" view of the firm, the company is a convenient concept, which holds no interests, and hence, it is impossible to maximize its interests. A more congruent view

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[106] Section 172 requires that "[A] director of a company must act in the way he considers, in good faith, would be most likely to promote the success of the company for the benefit of its members as a whole, and in doing so have regard (amongst other matters) to—
(a)the likely consequences of any decision in the long term,
(b)the interests of the company's employees,
(c)the need to foster the company's business relationships with suppliers, customers and others,
(d)the impact of the company's operations on the community and the environment,
(e)the desirability of the company maintaining a reputation for high standards of business conduct, and (f)the need to act fairly as between members of the company.
(2)Where or to the extent that the purposes of the company consist of or include purposes other than the benefit of its members, subsection (1) has effect as if the reference to promoting the success of the company for the benefit of its members were to achieving those purposes.
(3)The duty imposed by this section has effect subject to any enactment or rule of law requiring directors, in certain circumstances, to consider or act in the interests of creditors of the company."
Such arrangement explicitly recognizes the interests of constituencies other than shareholders.

of the interests of the company should be the ESV, which incorporate the interests of stakeholders in the path to maximize the long-term valuation of the firm.

## 4.4 Means of corporate law and governance

The means of corporate governance is crucial to achieve the ends mandated by the corporate law. In U.S., the governance system explicitly restricts the control of corporate affairs by shareholders, while in U.K., the internal governance arrangement is left to the articles of association. However, the Chinese corporate law mandates that shareholder meeting controls a broad spectrum of decisions, which is in sharp contrast to the board-centric corporate governance system adopted in U.S..[107] Combined with its concentrated ownership structure, such arrangement entrenches the controlling shareholders and aggravates the agency problems between controlling shareholders and minority shareholders.

The team production theory of the firm provides a solution to such problem. It argues that listed firms are separated entities from all their constituencies. Consequently, it is important to maintain the director's authority over corporate affairs and its independence from corporate constituencies. To recover the confidence of outside investors in listed firms in China, it is critical to restrict the decision rights of shareholder meeting, or at least, adopt an enabling approach, which makes it possible for investors to opt-out shareholder control over corporate affairs.

### 4.4.1 The team production model and director control

The team production theory of the firm is contractual and congruent to the "nexus of contracts" view of the firm, but differs from the principal-agent theory in that it sees the team production as the central feature. It rests on the observation that productive

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[107] Not all scholars share the view that shareholder control should be restricted. McConvill (2007) argues that shareholder participation in corporate decisions is an end in itself rather than to pursue any ends mandated by corporate law. Shareholder participation becomes a rational choice and brings "authentic happiness" to shareholders.

activities often require combined investments and coordinated efforts of multiple individuals or groups. As a result, the metering problem and protection of specific investments of team members in the production process determines the nature of the firm rather than the minimization of agency costs (Alchian and Demsetz, 1972; Williamson, 1971, 1985; Blair and Stout, 1999; Bainbridge, 2002a).[108]

The team production model of CLG focuses on directors' independence from corporate constituencies and maintenance of their discretions in making corporate decisions. Such arrangement is believed to encourage stakeholders to make firm-specific investments (Blair and Stout, 2006). There are two variants of the team production models, one by Blair and Stout (henceforth "Blair and Stout's model"), and the other by Bainbridge (henceforth "Bainbridge's model"). The two models differ in their attitude towards corporate personality and the objectives of the firm.

### 4.4.1.1 Bainbridge's team production model

Bainbridge (2002a: 8) suggests that the corporation is "a vehicle by which the board of directors hires various factors of production. Hence, the board of directors is not a mere agent of the shareholders, as standard contractarian theory claims, but rather is a *sui generis* body-a sort of Platonic guardian-serving as the nexus for the various contracts making up the corporation." Instead of being the agent of shareholders, the director embodying the corporate principal, serves as the nexus to the corporate contracts and hires various factors of production, which functions similar to the "Platonic guardian".

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[108] Alchian and Demsetz (1972: 783) give an description of the ideal features of the party taking monitoring responsibility: "It is this entire bundle of rights: 1) to be a residual claimant; 2) to observe input behavior; 3) to be the central party common to all contracts with inputs; 4) to alter the membership of the team; and 5) to sell these rights, that defines the ownership (or the employer) of the classical (capitalist, free-enterprise) firm." Blair and Stout (2001: 419) refer team production to complex productive activities that "require multiple parties to make contributions that are to some extent both team specific and unverifiable to an outside party, such as a court."

The central idea of Bainbridge's model lies in that corporate decisions should be made balancing the authority and accountability. He argues that decision rights should be allocated with the directors rather than other corporate constituencies.[109] The authority and accountability tradeoff is first discussed by Arrow (1974), who suggests that centralized decision making process exploits the economy on the transmission and handling of information. Such view on decision making is extended by Dooley (1992), arguing that any corporate governance framework is a mixture of the Responsibility Model and Authority Model. The Authority Model requires that the agent directors are independent from any stakeholders of the firm, while the Responsibility Model stresses that principal's interests should be properly protected, which sometimes lead to allocation of decision rights with shareholder group.

The authority of decision-maker could be undermined if most of their decisions will be reviewed by a strict and continuous organ checking accountability, such as shareholder group. The locus of authority will be shifted from directors to shareholders. Bainbridge (2004) therefore argues that current American CLG system confirms the preference for maintaining authority in directors, which allocates the non-reviewable decision rights to directors. The business judgment rule protects the decisions of directors from challenges of the shareholders and courts unless certain preconditions are met. The arrangement concerns that judges are no better business man than professional directors, and hence should not be expected to make more efficient decisions. Usually, when judges make business decisions, they suffer from hindsight biases.

Such model needs to reconcile the absolute authority with the accountability of the decision maker. Bainbridge (1993) argues that, to make directors accountable, the shareholder wealth maximization norm should be the objective of the firm. This

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[109] An alternative governance mechanism is the consensus and accountability, which allocates the decision rights to corporate shareholders. Such governance mechanism should function well given small number of shareholders having identical interests and information.

arrangement is similar to Alchian and Demsetz (1972)'s solution to team production by assigning the monitoring role to the residual claimants, who have strong incentives to maximize the corporate residual income. But shareholders' power to interrupt should be restricted according to Bainbridge's model.

In addition, several internal and external governance mechanisms assure that decisions are made responsibly. First, the decision making function is performed by a group of directors rather than the sole director. It is well-accepted that group decision making is more accountable than that of individual, who usually suffers from bounded rationality, individual biases, and asymmetric information (Bainbridge, 2002a). The "mutual monitoring and peer pressure provide a coercive backstop for a set of interpersonal relationships founded on trust and other noncontractual social norms" (Bainbridge, 2002a: 28). Second, the competition in various markets will discipline the directors to make efficient decisions, such as the competition in capital and product markets, the internal and external employment markets of directors, and the market for corporate control.

### 4.4.1.2 Blair and Stout' team production model

Blair and Stout's model highlights the board of directors serving as the "mediating hierarchy", which solves the team production problem of the public corporation and preserves firm-specific investments of corporate constituencies.[110] Alchian and Demsetz (1972) investigate the organizational team production, which features that it is only possible to meter the joint output of the team rather than each effort devoted by team member leading to team members shirking and free-riding other parties' efforts. As a result, some parties have to specialize in monitoring the efforts of team members and reward them accordingly. The monitoring role hence is allocated with the residual claimants, who have strong incentives to maximize the residual income of

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[110] As Blair and Stout (1999) restrict their model to the group of public corporations, Meese (2001) criticizes their model for that the firm specific investments in public corporations have no difference from those in private firms, hence, it is inappropriate that principal-agent model suits the governance of private firms, while team production model public corporations.

the firm. In contrast, Holmstrom (1982) suggests an alternative solution to the moral hazard problem inherent in the team production, that is, "the problem of inducing agents to supply proper amounts of productive inputs when their actions cannot be observed and contracted for directly", that an outsider balancing the budget for incentive schemes, which will force team members to reveal their private information on efforts.

Another important feature of public corporation is that its success depends on various constituencies making firm-specific investments, which is central to the literature of TCE (Williamson, 1971, 1979, 1985).[111] TCE argues that the post-contractual opportunistic behaviors will deter contractual parties to make efficient relation-specific investment. As a result, it is highly expensive to use market contracts when these contracts have to be revised or renegotiated, since parties are locked-in due to the *ex ante* relation-specific investment and are difficult to switch to other contractual parties, which lead to haggling and exploitation of what Klein *et al.* (1978) refers as "quasi rents".[112]

Firm-specific investments are extremely vulnerable to exploitation facing the hostile takeover bids for the reason that the new controller seldom honors the implicit contracts between the firm and its various stakeholders, sometimes even deliberately break such contracts to make a profit (Shleifer and Summers, 1998).[113] The antitakeover defense, according to Stout (2002), increases the independence of

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[111] TCE explains the integration between different firms as reducing the costs of bilateral dependence. Since TCE assumes that parties can make efficient *ex ante* relation-specific investments, but cannot write complete contracts to divide the surplus, it then tries to explain the boundary of firms from the perspective of *ex post* governance of contracts (Gibbons, 2005; Williamson, 2002). Integration changes the economic governance between distinct economic units to corporate governance within one unit.

[112] The bilateral dependence or lock-in is due to the "Fundamental Transformation", which is defined by Williamson (2002: 176) as "a subset of transactions for which large numbers of qualified suppliers at the outset are transformed into what are, in effect, small number of actual suppliers during contract execution and at the contract renewal."

[113] The firm could adopt antitakeover defenses, such as poison pills or staggered board, which according to Bebchuk, Coates, and Subramania (2002) significantly reduce the successful probability of hostile takeover, and hence, the external monitoring of directors and the welfare of shareholders. The discussion on antitakeover defense is discussed in later sections in detail.

directors, and meanwhile protects such firm-specific investments and increases the wealth of shareholder *ex ante*.

As a result, Blair and Stout (1999) argue that team members should give up their property rights on team inputs, which are transferred to and locked in these firms when they incorporate.[114] "[B]y forming a corporation, the original team members all agree to give up control rights over the output from the enterprise and over their firm-specific inputs" (Blair and Stout, 1999: 277). In addition, directors are positioned as the "mediating hierarchy", who is charged with "balancing the sometimes competing interests of a variety of groups that participate in public corporations" (Blair and Stout, 2001: 408). Such arrangement fits the theoretical model proposed by Rajan and Zingales (1998b), who state that allocation of control rights to one party to the contract empowers the "owner" to capture rents by exploiting other members' firm-specific investments, rather than encouraging owners to make optimal investments. Instead, such exploitation will be alleviated if control rights are allocated to a party outside the team, who will distributes the surplus according to ther contributions.

### 4.4.1.3 Director control in United Kingdom and United States

As is discussed in the previous sections, the internal governance structure of listed firms features that the board of directors assumes the responsibilities on the management of the firm, while the shareholder meeting specializes in bearing the residual risks. Several commentators argue that such separation of ownership and control is the central characteristics of public corporation. For example, Stout, (2013: 2005) characterizes the public corporation as "large, publicly listed company with professional management and dispersed shareholders". And Acharya *et al.* (2011: 689) state that public corporation "is commonly viewed as an organization run by CEOs and monitored by a board of directors on behalf of shareholders." Though the

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[114] The function of locking in capital is accredited to the increase of the popularity in organizing production with the organizational form of corporation (Blair, 2004).

shareholders hold *de jure* residual control over the firm, the board of directors are *de facto* controllers, as shareholders are rational apathy about corporate decisions.

For those firms listed on U.S. markets, the formal authority over firms' affairs is allocated with the board and senior management, while shareholders enjoy limited *de jure* control over the firm. Delaware code requires that the corporation's business and affairs "shall be managed by or under the direction of a board of directors."[115] Shareholders generally have control over the election of directors, amending the corporate charter, reincorporating in another state, merging with another company, sale of substantially all assets, and liquidation.[116] However, two institutional backgrounds make shareholder passive in participating the control of the firm. One is the dispersed ownership structure, the other is the obstacles the American corporate law lays towards shareholder voting.

Thompson and Smith (2001) observe though shareholder hold legitimate authority over corporation decisions, they are actually difficult to make any such decisions. Black (1990:523) argues that institutional shareholders in particular are "hobbled by a complex web of legal rules that make it difficult, expensive, and legally risky to own large percentage stakes or undertake joint efforts." The procedural and cost bearing rules are not on the shareholder's side. For example, shareholders aiming to elect a director or vote on matters of the company's business is a legitimate reason to inspect and copy shareholder lists. The board of directors could delay deliver the lists of shareholders to dissenting shareholders and fail to reimburse the costs of proxy fight of a losing dissident. Another example is the shareholders willing to add proposals to be voted on the shareholder annual meeting. They have to submit the proposal five months before the annual meeting.

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[115] See DEL. CODE. ANN. tit. 8, §141(a) (2001).
[116] See, e.g., DEL. CODE ANN. tit. 8, §§211 (election of directors), 242 (charter amendments), 251 (merger), 271 (sale of assets), 275 (liquidation) (1983 & Supp. 1988).

Though American corporate law adopts an enabling attitude towards shareholder control, *i.e.* it leaves the issues relating to internal governance to the corporate constitution, which is the result of the private bargaining of corporate constituencies, Danies and Klausner (2001) still find that including those firms with sophisticated investors, such as venture capitalists or leverage buyout specialists, around 24.5% of their sample adopts charter clauses that preclude shareholders from calling a special meeting and acting by written consent, which, according to agency theory, fails to maximize the valuation of the firm. Such observation is in accordance with the concept that directors serving as the "mediating hierarchy", which explains the anomalies of American corporate law that could not be appropriately explained by the principal-agent model.[117]

In contrast, the legislature in U.K. builds a more supportive environment to shareholder control, though it still recognizes that directors is in the central of corporate management. The Article 3 of the 2013 *Model Articles for Public Companies* in U.K. adopts a default rule concerning the authority of directors and allocates directors with the power to manage the company's business and for this purpose "they may exercise all the powers of the company". The Section A.3 of the *Combined Code for Corporate Governance 2006* in U.K. explicitly addresses the board balance and independence. It requires that "the board should include a balance of executive and non-executive directors (and in particular independent non-executive directors) such that no individual or small group of individuals can dominate the board's decision taking." Hence, the controlling shareholders or shareholder groups should not be expected to dominate the decision process. The British corporate law adopts an enabling approaches towards the internal governance of the firm, with the

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[117]  Blair and Stout (2006) summarize such anomalies, which includes "(1) the corporate law does not grant shareholders the legal rights of principals nor burden directors with the legal obligations of agents; (2) corporate law does not treat shareholders of solvent firms as sole residual claimants; (3) far from being an empty fiction, legal personality is a key feature of the corporate form; and (4) corporate law does not impose any obligation on directors to maximize shareholder wealth".

default rules as director control, and leaves it open to the arrangements of articles of association as a result of private bargaining.

## 4.4.2 Means of corporate governance in China

### 4.4.2.1 Shareholder control

Though concentrated ownership in China bring value to the firm through its monitoring activities, which reduces the agency costs between shareholder and directors, Edmans (2014) cautions that they could reduce corporate value through their *ex ante* negative effects on managerial initiatives and reducing the liquidity of the stock.[118] In addition, there is no guarantee that block shareholders maximize the value of the firm rather than their private benefits. The corporate governance practice seems to confirm such concern with self-interested block holders. The corporate law in China still maintains a mandatory regime, which involves high regulation of the State, though it has been improving since the last revision of the *Company Law* in 2006. A huge proportion of the management role is mandatorily assumed by shareholder meeting, of which the most important is the decision of operation strategies and investment plans. The arrangement partially reflects the government's wishes to realize its political goals through the SOEs.

As is mandated in the Article 37 of the *Company Law* 2006, the shareholder meeting of the listed companies maintain the general authority over the firm, including both the rights to raise finance and make investment. To fully provide guidance about the authority, Article 38 of the *Company Law* 2006 explicitly cites 10 items that shareholder meeting has authority over, in addition to other items mandated in the articles of association.[119] The allocation of corporate-law-based power between

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[118] See Hutchison and Alley (2009) for a criticism on shareholder activism, which is regarded to bring huge costs to the firms borne ultimately by shareholders themselves.

[119] The article 38 of Company Law allocates with shareholder meeting the formal authorities on the following decisions: "(1) determining the company's operation guidelines and investment plans; (2) electing and changing the director and supervisors assumed by non-representatives of the employees, and determining the matters concerning their remuneration; (3) deliberating and

directors and shareholders is reciprocal. When decision-making authority resided in shareholders increases, those in directors decreases, and vice versa.

In addition, the concentrated ownership structure reinforces the formal power enjoyed by shareholder meeting, which is most prominent in the decision rights of appointing personnel. Lin (2012) also notices that the State actively involves in naming or replacing management, which could not be the fittest candidate for the job. The concentrated ownership structure combined with the mandatory extensive authorities resided in the shareholder meeting makes it easy for controlling shareholder pass resolutions harming the interests of minority shareholders.

A case in point reflecting the tight control of dominant shareholders on affairs of the listed firms and its detrimental effects on corporate performance is the astonishing fundraising plan of a Chinese company Ping An (601318) on 21 January 2008, which tries to raise 160 billion *yuan* without any investment plan. Though the retailing shareholders rejected the proposal and voted with their feet, resulting around 1/3 drop in the stock prices, the shareholder meeting still pass the proposal with 92% voting yes. In another event study conducted by Zeng *et al.* (2011), the authors find that in the split share reform initiated in 2005, in which non-tradable share owners must compensate tradable share owners in order to transfer their previously non-tradable shares to tradable one, the controlling shareholders successfully collude with institutional block shareholders to reduce the compensation ratio of the passed proposals, which should be approved by at least two-thirds of all shareholders, who participate in shareholder meetings and two-thirds of tradable shares owners, who vote.

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approving the reports of the board of directors; (4) deliberating and approving the reports of the board of supervisors or the supervisor; (5) deliberating and approving annual financial budget plans and final account plans of the company; (6) deliberating and approving profit distribution plans and loss recovery plans of the company; (7) making resolutions on the increase or decrease of the company's registered capital; (8) making resolutions on the issuance of corporate bonds; (9) adopting resolutions on the assignment, division, change of company form, dissolution, liquidation of the company; (10) revising the articles of association of the company; (11) other functions as specified in the articles of association."

Shareholder control imposes great agency costs on listed firms. Both academics and legislatures have been knowing the high agency costs of concentrated ownership structure, especially those due to governmental shareholding. The Chinese legislature also attempts to constrain such costs. The Article 8 of *2005 Notice of the State Council on Approving and Forwarding the Opinions of China Securities Regulatory Commission on Improving the Quality of Listed Companies (2005 Notice)* explicitly recognizes that improving the independence of listed firms from its controlling shareholders or actual controllers is crucial to the improvement of quality of corporate governance. Following the spirit of the *2005 Notice*, CSRC issues the *Administrative Measures for the Initial Public Offering and Listing of Stocks (Administrative Measures)* in 2006, which provide several more detailed standards concerning the independence of the listed firms. The entire Section 2, from article 14 to article 20, of the *Administrative Measures* requires that the firms intending to list on the stock markets to have independent assets, personnel, financial accounts, agents and business. Such regulation on the controlling shareholders and actual controllers is shared by the *2010 Guidance of the Behavior of Controlling Shareholders and Actual Controllers of Listed Firms* issued by Shanghai Stock Exchange. The Chapter 2 of the Guidance concerning the corporate governance mandates that controlling shareholders and actual controllers should behave themselves and not impair the independence of the listed firms.

### 4.4.2.2 The failure of independent directors monitoring

Another important attempt to increase the independence of listed firms is the introduction of system of independent directors, which is expected to guard interests of the company and its retail shareholders.[120] There are some weak evidence that independent directors could constrain the tunneling activities of the controlling

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[120] Chinese corporate law adopts a dual board system, which resembles that in German listed firms. The supervisory board system is established by the 1993 *Company Law* and expected to carry out the monitoring function.

shareholders. Dahya *et al*. (2008), in a cross country study, find that the fraction of independent directors reduces the propensity of controlling shareholders undertaking related-party transaction. In 2002, CSRC publish its *Guiding Opinion Concerning the Establishment of an Independent Directors' System in Listed Companies* (*Opinion*), which aims to improve the quality of corporate governance of Chinese listed firms and build the independent director system in China. The *Opinion* mandates that at least 1/3 of the directors of listed companies should be independent directors.[121]

The Article 1 of Section 1of the *Opinion* gives a definition of the independent director that "a director who does not hold any position in the company other than director and who has no relationship with the listed company engaging him or its principal shareholders that could hinder his making independent and objective judgments." In addition, the Section 3 of the *Opinion* gives a detail description on the restrictions of persons being directors of listed firms aiming to provide detailed criterion of independence, which includes "(i) a person who holds a position in the listed company or its subordinate affiliates as well as the direct relatives of, and those with important social connections to, the former; (ii) a person, or the direct relative of a person, who directly or indirectly holds at least 1% of the company's stock or is among the top ten shareholders of the company; (iii) a person, or the direct relative of a person, who is employed by an entity that directly or indirectly holds at least 5% of the company's stock or is among the top five non-natural person shareholders of the company; (iv) a person about whom any of the above conditions have been met within the last year; (v) a person who supplies accounting, legal, consulting, or other similar services to the company or its subordinate affiliates; (vi) any other person specified in

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[121] Article 1 to 3 of Section 4 of the *Opinion* provides a procedure for electing independent directors. First, any of the (i) incumbent member of the board of directors; (ii) incumbent member of the board of supervisors; or (iii) a shareholder who owns more than one percent equity interest, could nominate candidates for independent directors. Second, the listed firm should file the nomination documents to CSRC, while CSRC maintains the rights to reject such nomination. Third, the approval will be made by resolution of the shareholder meeting.

the company's articles of association; and (vii) any other person specified by the CSRC."[122]

The independent directors are protected from discretionary removal to maintain its independence. It is relatively difficult to remove the independent directors prior to the expiration of his term of office without good reasons. Article 5 of Section 4 of the *Opinion* mandates special disclosures for dismissal of independent directors, and independent directors dismissed could make declarations, both of which are negative sign for the internal governance system of the listed firms, and could affect the share prices negatively. However, the pure independence has no guarantee for good corporate performance, since completely independent directors are hard to get inside information.

A more relevant concept with respect to safeguarding the interests of minority shareholders is the disinterested directors, which is introduced to curb the power of controlling shareholders or actual controllers in arranging transactions with conflict of interests, for example, transactions between "a corporation and one of its directors or officers, or between a corporation and another entity in which one of its directors or officers has an interest, or the taking by corporate officers of business opportunities that arguably belong to the corporation" Clarke (2006: 165). It is worthy noticed that independent directors could be interested, if, for example, the transaction is between the listed firm and another entity that the independent director has an interest.

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[122] It should be noticed that according to the Section 3 of the *Opinion*, not all non-executive directors, who are not members of the senior management team, are independent directors. For example, if the non-executive directors hold relationship with the listed company or its principal shareholders, which could impair their independent judgment, they may not be classified as independent directors. See Clarke (2007) for a detailed discussion on the definition of independence, which point out that *2002 Sarbanes-Oxley Act* requires that the independent directors serving in the audit committee in American listed firms is not allowed to "(i) accept any consulting, advisory, or other compensatory fee from the issuer; or (ii) be an affiliated person of the issuer or any subsidiary thereof" (Sarbanes-Oxley Act § 301 (codified at 15 U.S.C. § 78j-l(m)(3)(B)))

Though the independent director system in China is expect to guard interests of minority shareholders against the exploitation of corporate insiders, it is unlikely to achieve such goals and bring value to the firm.[123] It is possible that self-interested corporate insiders could appoint independent directors to bond themselves to effective external monitoring, so as to reduce the firm's cost of capital and make it more competitive with other firms and thus more likely to survive. Such voluntary incentives are weak considering the high private benefits of control.

Under current situation, independent directors seeking for selection need to obtain support from controlling shareholders (Chao, 2006). Though shareholders holding more than 1% stakes could nominate independent directors, according to Article 1 of Section 4 of the *Opinion*, the nomination have to be approved by shareholder meeting, which is controlled by dominant shareholders. As a rational entity, the controlling shareholder will not approve dissenting independent directors against their private benefits, which will lead to implicit dependence of independent directors' successful elections on controlling shareholders, who should be monitored by independent directors.

The independent directors generally lack appropriate incentives, *i.e.* they face little changes in costs and benefits if their efforts change, which is crucial to monitor the management effectively and guard the interests of retailing shareholders against exploitations of corporate insiders. The corporate law employs a system of liability to motivate directors, *i.e.*, the directors are hold liable if they violate the fiduciary duties to the company and all its shareholders mandated by Article 33 of *Company Law*. However, as the definition of the fiduciary duty is extremely vague in Chinese corporate law, the independent directors are seldom hold liable for their negligent monitoring. In addition, it is extremely difficult to prove that directors have done

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[123] The empirical studies provide no solid evidence that independent directors bring value to listed firms, though executive directors with proper incentives are proven to bring value to the firm (Bhagat and Black, 2001).

violation other than in the situation of conflict interests, and the insurance successfully protect directors from most of liabilities (Hamdani and Kraakman, 2007).

The reward system is another important mechanism to provide appropriate incentives to independent directors, which align the interests of directors with those of the listed firms and is seen as the solution to director governance.[124] According to the Article 5 of Section 7 of the *Opinion*, independent directors should be paid with fixed allowance, the amount of which is formulated by the board meeting and approved by shareholder general meeting. If the payroll of the directorship is the major benefits to independent directors, then they should be responsible to the interests of those that can reelect them.[125] In the current situation of China, the power is resided in either controlling shareholders or the government bureaucrats. Hence, it is difficult to imagine such arrangement could be an effective mechanism to protect the interests of the firm and minority shareholders. Clarke (2006: 150) has already notice the difficulty to solve the problem with active state shareholders: "[T]hus, as long as state policy requires the state to stay as an active investor in firms of which it is not the sole shareholder, meaningful legal protection for minority shareholders is going to mean either constraints on the state's ability to do precisely those things for which it retained majority ownership, or else a *de facto* separate legal regime for enterprises in which the state is the dominant shareholder."

In addition, the legislature in China forbids independent directors to own significant proportion of shares, which aims to distinguish the incentives of independent directors from those of shareholder directors. The *Opinion* rejects the independency of directors if they hold more than 1% of the share outstanding, or among the largest ten

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[124] Hamdani and Kraakman (2007) caution that in the short run, equity holdings will reduce the incentives of directors to investigate and disclose wrongdoings, since it will depress the share price. They propose a novel system, reverse negligent, which takes a rewarding perspective and provides benefits to those directors who prove to satisfactorily discharge their obligations of monitoring senior management.

[125] Zhao (2011) argues that the payroll of the boardroom job is highly important to some of independent directors, such as academic scholars, whose salary is paid in accordance with that of civil servants, and far less than that of the payment from the position of independent directors.

shareholders. This is in contrast with the proposition held by American corporate law, which, according to Clarke (2007), stipulates that five to ten percent of shareholding is not regarded as the reason to challenge independency. This could be attributed to the concern that due to the concentrated ownership, the independence of the directors could be impaired by significant share ownership, as it is easy for independent directors with block shareholding to collude with the controlling shareholders.

As a result, it is difficult for independent directors to act independently and guard interests of minority shareholder against exploitations by corporate insiders, such as self-dealing transactions. For example, a common strategy employed in continental Europe countries, *i.e.* countries with listed firms having concentrated ownership structure, to deal with transactions with conflict of interests, is mandatory procedures, where independent directors are highly involved (Conac *et al.*, 2008). The Article 1 of Section 5 of the *Opinion* explicitly requires the independent directors as the watchdog for significant related-party transactions, which should be approved by them before submitting to the board of directors. However, independent directors that always challenge the transaction preferable to the controlling shareholders will be hardly elected.

### 4.4.3 Rematch the means with the ends in Chinese corporate law

The discussion of means and ends of CLG is crucial to facilitate the stock market development in China. Its current model, that shareholder control over the firm for the benefits of shareholder, is not efficient in achieving good corporate governance practice, since it overemphasizes the principal-agent relationship in the firm. According to Eisenberg (1998), the firm has dual nature, on one hand, it is a contractual organization, congruent to principal-agent model; on the other, it is bureaucratic hierarchical organization, congruent to the team production model. It should be noticed that the controlling shareholder is not a vulnerable party in corporate governance framework, who has already gained protection through its

concentrated shareholding. This is in sharp contrast to the listed firms in Anglo-Saxons countries, which have dispersed ownership. The outside investors hold small stakes in the firm and are weak compared to management.

As a result, the mandatory ends of corporate law to maximize shareholder value, which is sometimes inappropriately interpreted as maximizing share prices, aggregate the problem of corporate governance. The overweight interests of shareholders actually increase the already significant power of controlling shareholders, which lead to maximizing the wealth of controlling shareholders rather than that of the valuation of the firm. Based on the argument of rational apathy, minority investors should pay no attention to the control rights allocated with the shareholder meeting.

The ESV, that is, the interests of stakeholders other than shareholders are crucial in achieving maximization of long-term valuation of the firm, has gained success in the British corporate law, which tries to balance the interests of various corporate constituencies. Meanwhile, Chinese corporate law also recognizes the importance of stakeholders' interests, both of which reflect adjustments towards balancing the feature of team production and that of principal-agent relationship. Blair and Stout (2001) refer the central feature of the team production to firm-specific investments and on-going value of the firm, which are hard to be verified by outside parties. Therefore, corporate constituencies making firm-specific investment, for example, employees and consumers, also hold residual claims over the firm, though a significant part of their payoff is fixed (Stout, 2002). To exploit the benefits of team production, it is important to protect these firm-specific investments.

To protect such non-contractual firm-specific interests, shareholder control is not a good choice, as for minority shareholders, they rationally pay no attention to management of firms' affairs, and for controlling shareholders, they maximize their private benefits. Blair and Stout (1999) propose a director control model, in which the board of directors serves as the "mediating hierarchy" independent from all the

corporate constituencies including shareholders. Such model, in contrast, emphasizes the team production feature of the firm, while overlooks the principal-agent problem. Directors without any constraint will absolutely try to maximize their own benefits rather than protect firm-specific investments and maximize the valuation of the firm.

Considering the dual nature of the firm, the corporate governance model should balance its features of accountability and authority (Arrow, 1974; Dooley, 1992; Bainbridge, 2002b). The principal-agent model maintains that directors are accountable to the principal shareholders, which reduces their authority over the management of the firm, while in contrast, team production model argues for absolute director authority, while fails to hold directors accountable. The current Chinese CLG model put overwhelming weight on the accountability of directors to shareholder principal, which undermines the authority of directors.

As is discussed in previous sections, the corporate law allocates the *de jure* authority to the shareholder meeting. For the real authority, the concentrated ownership structure guarantees that shareholder meeting is controlled by dominant shareholders under current voting schemes.[126] The controlling shareholder with significant stakes to decide corporate affairs have enough incentives to collect information to maximize their personal wealth, hence to maintain real authority over the firm. As a result, controlling shareholders maintain both the formal and real authority.

Though enjoying a significant control over the firm, the controlling shareholders only bear general duties that they should not exploit interests of the firm and other investors.[127] Such duties are often too vague to be enforced by dissenting investors.

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[126] The Article 104 of the *Company Law* mandates that to pass a resolution, there must be more than half of the voting rights presented in the shareholder meeting in favor of such resolution, while for a special resolution, the quorum is two thirds.

[127] Hopt *et al.*, (2011) points out that the French corporate law imposes fiduciary duties on controlling shareholders, while the American, Italian and Swiss corporate law shy from such arrangement.

In addition, considering that Chinese courts are not willing to accept such cases, the controlling shareholders bear little risk to exploit the minority shareholders.[128]

Nevertheless，such real authority is important for directors to make firm-specific investments, such as collecting enough information to make the efficient decisions. Baker *et al.* (1999) argue that the formal authority is always held by the principal shareholder, while the real authority is occasionally delegated to the agent directors informally, which could be retracted by principal controlling shareholders at will. As such informal contracts are never enforceable by external authorities, the principal needs to establish the reputation that such delegation will not be retracted so as to encourage the agent director to invest. However, it seems that the controlling shareholders have little interest to establish the reputation that directors have real authority.

Imagine that directors expect that whatever decisions they make will be overturned by shareholder meetings, or should be approved by shareholder meetings, it is rational for them to cater to the preference of controllers, instead of making the efficient choice, as controllers of shareholder meetings will discharge their fiduciary obligations. In the current circumstances, such controllers are controlling shareholders for private firms and civil servants of local and central governments for SOEs, who prefer their private benefits rather than those of the firm.

As a result, to balance the authority and accountability it is important to reorganize the internal governance structure of the firm and restore the key feature of the public corporations, *i.e.* specialization and separation of the decision roles and residual risk bearing roles. The arrangement is in accordance with the framework proposed by

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[128] In 2001, the Supreme People's Court issues a notice that requires courts to decline the appeals of civil cases arising from market misconducts in Chinese stock markets. See *Zuigao Renmin Fayuan Guanyu She Zhengquan Minshi Peichang Anjian Zanbuyu Shouli De Tongzhi* [The Notice of the Supreme People's Court on Declining of Civil Tort Dispute Cases Arising from Market Misconducts on the Securities Market] (Sep. 21, 2001).

Fama and Jensen (1983b), who argue that the decision process could be decomposed into the decision management function and decision control function. For small and medium enterprises, decision management function is delegated to subordinate managers and the residual claimants maintain the decision control role. However, such governance structure no longer suits the large public corporations with dispersed ownership structure, and residual risk bearing should be separated from decision rights.

In most countries with one tier board, the internal governance model with respect to the decision rights is as follows: The management decisions are allocated with the executive board members, who are often the senior managers, while the non-executive directors and independent directors maintains the control decisions. In contrast, in countries with two tier board, the management decision is allocated with management board and the control decision is allocated with the supervisory board. Such arrangements have the efficiency gains due to the fact that decision agents no longer have to be those with both wealth and willingness to bear the risks and specialized knowledge, and the risk bearer could enjoy the benefits of diversification.

A moderate step towards restructuring of the internal governance of listed firms is to change the mandatory regime of corporate law with respect to division of authority between shareholder meeting and board of directors to a default regime. The default regime allows listed firms evolve towards the model of director control under market competitions. The default regime avoids the "one-size-fit-all" internal governance structure, which kills the possibility of evolving to more efficient arrangement incentivized by the needs to survive in the product market competition.

## 4.5 Conclusion

This Chapter reviews the means and ends of corporate governance system in China, which are compared with those of American and British system that exert great

influence on the Chinese corporate law system. The literature has already noticed the complex ownership structure of listed firms in China, which differs from the dispersed ownership structure in Anglo-Saxons countries. Generally speaking, a large proportion of the listed firms are controlled by the State, while an increasing number of firms are controlled by private parties. These two types of firms suffer from different agency problems: For SOEs, the agency problem exists between controllers (government officials and management) and minority shareholders, and for private firms, the problem exists between controlling shareholders and minority shareholders.

The Chinese CLG system features with ends of shareholder wealth maximization and means of shareholder control, which contributes to the bear market in recent years. Though shareholder wealth maximization is still an influential criteria for corporate governance, it imposes great costs on listed firms. A new concept, ESV, which has already been written into the *Company Act* in U.K., gains attention in both academics and practice. It regards the long term valuation of the firm as the objectives of the firm and argues that to achieve such ends, the interests of corporate constituencies should be taken into consideration.

Given the ownership structure of the Chinese listed firms, the shareholder control as mandated by corporate law proves to be an inappropriate arrangement, which entrenches the controlling shareholders and makes it easy for them to exploit the interests of minority shareholders. Though the legislature and regulators in China tries to increase the independence of listed firms through establishing the modern independent directors system, it proves to be futile as the independent directors lack incentives to guard interests of minority shareholders against exploitation of controlling shareholders. The problem lies in overweight of accountability of agent director to shareholder principle, which overlooks the team production feature of corporate governance. To fix such problem, the Chapter proposes a move from the mandatory division of power between shareholder meeting and board meeting to the

default regime. Market competition will drive listed firms to opt-out inefficient requirements and opt-into more efficient internal governance system.

# 5 Conclusion

The last decades witnesses the rise of the law and finance scholarship, which argues that legal institutions are fundamental to financial development, and is built on a series of empirical studies carried out by LLSV and their coauthors. As legal origins are no longer valid instruments, the First Chapter performs a global sensitivity analysis to test the robustness of cross-country relationship between shareholder protection rules "on the book" and stock market outcomes. The study employs 26 variables having theoretical predicative power for stock market outcomes and applies the BMA algorithm to the specification used by DLLS (2008). The analysis finds that the established positive relationship between the anti-self-dealing rules and stock market development are fragile and no longer significant. Another interesting observation is that the significance of the doubtful variables is different across regressions with different outcome variables. The result indicates that the usually adopted "one-size-fit-all" specification strategy with respect to different characteristics of stock market is inappropriate.

The Second Chapter pays special attention to IPO markets and presents a simple model to investigate if the rules of minority shareholder protection affect firms' decision to issue external finance homogenously. The level of minority shareholder protection influences firms' decisions through two channels: The lower costs of external finance and the higher costs of insider control. Using the dynamic panel specification and GMM-sys estimator, this Chapter confirms that the minority shareholder protection could impose heterogeneous effects on stock market outcomes. The additional costs imposed on controllers of private firms reduce their incentives to undertake IPO, while the decreased costs of external finance facilitate listed firms to make seasoned offering.

The Third Chapter examines the corporate governance reform in China against the background of law and finance movement. To boom its stock market, the legislature and regulators in China actively transplant best practice from Anglo-Saxons countries, which emphasize minority shareholder protection. However, the ownership structure of listed firms in China is quite different from that in Anglo-Saxons countries, with the governments and private parties as the controllers. The corporate law in China mandates that firms should maximize the wealth of shareholders, though ESV becomes noticed and interests of stakeholders are considered to achieve maximization of long-term valuation of the firm. However, to achieve such ends, the corporate law allocates the control rights with the shareholder meeting, which combined with concentrated ownership entrenches the controlling shareholders. The mismatched means and ends of corporate law is the fundamental weakness of the corporate governance of listed firms, which should be corrected in order to facilitate better corporate governance practice. As a result, the Chapter proposes a default regime with respect to the internal governance system instead of the mandatory one. Such enabling approach leaves space for market competition and make it possible for listed firms to opt out inefficient arrangements.

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